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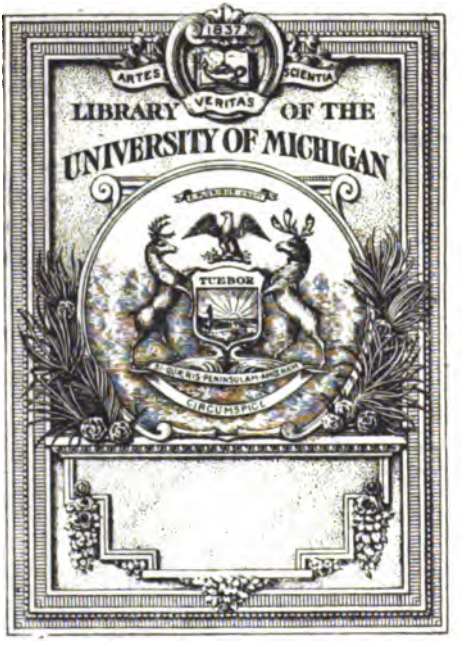


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# PROCEEDINGS

OF THE

## ELEVENTH ANNUAL MEETING

OF THE

# North Central Association

OF

## COLLEGES AND SECONDARY SCHOOLS

*Held at*
*Chicago, Illinois, March 23 and 24, 1906.*

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EDITED BY

JOSEPH VILLIERS DENNEY
SECRETARY OF THE ASSOCIATION

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COLUMBUS, OHIO
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1906

Copies of the Proceedings of the North Central Association of Colleges and Secondary Schools may be obtained by addressing the Treasurer of the Association; Mr. J. E. Armstrong, Englewood High School, Chicago. The price of single copies is twenty-five cents. The price of the complete set as far as published (twelve numbers, including the report of the Preliminary Meeting for Organization) is $2.75.

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The next meeting of the Association will be held in Chicago, Friday and Saturday, March 29 and 30, 1907.

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# The North Central Association

OF

## Colleges and Secondary Schools.

**Eleventh Annual Meeting, Chicago, March 23 and 24, 1906.**

The eleventh annual meeting of the North Central Association of Colleges and Secondary Schools was held in Chicago, Friday and Saturday, March 23 and 24, 1906.

### First Session Friday, March 23, 1906.

The Association was called to order at 10 o'clock, a. m. in the Banqueting Hall of the Auditorium Hotel by the President, George Edwin MacLean, Ph. D., LL. D., President of the State University of Iowa.

Prayer was offered by the Reverend Charles F. Thwing, D. D., President of Western Reserve University, Cleveland, Ohio.

President MacLean delivered the annual address as follows:

### An American Federation of Learning

GEORGE EDWIN MAC LEAN PH. D., LL. D., PRESIDENT OF THE STATE UNIVERSITY OF IOWA.

In this age we are partakers in great movements and awed by great names. In the dawn of a new nationalism we hear of the nationalization of educa-

tion. The socialization of education is the watchword of the progressive professors of a great tendency. By the doctrine of evolution education is one of the correlating forces of civilization, and the great practical topic becomes that of the correlation of education with civilization. The rapid development of state school systems, all crystallizing too quickly and becoming stationary in statutes, and the straining after a national system amidst the wide diversity of culture, overwhelm our ingenuity and are threatening our future. Alas! an educational system set up in our statutes is the savior in whom we trust!

As over against this peril, this association stands for the nationalization of education by standards, not by statutes. We trust in education with standards. As humble prophets of education gathered in this central city of America, consecrated by the crowning work and death of a Harper, praying that his mantle may fall upon us, we hear the divine call, "Lift up a standard for the peoples."

Catching something of the spirit of the great topics enumerated, and of the work of our most distinguished departed leader, we have chosen the subject of "An American Federation of Learning." As to a true American, labor dignifies, and labor and learning go hand in hand, we are content to parallel in title the American Federation of Labor.

A proper treatment of our simple theme may prepare the way for a realization of the grander topics. Permit me, proceeding by the inductive method, to use a line of work in which this association has accomplished much and which I have had occasion to treat elsewhere. I refer to our system of accrediting schools and other systems of admission to college.

One of the principal nodes for the federation of education may be found at this point. I therefore afflict you with an abstract of an address given by me at the last session of the National Educational Association upon the topic, "Which is better, the western plan of admitting students to colleges and universities by certificates from duly inspected secondary schools, or by the eastern method of admitting only by examinations conducted by representative boards or otherwise?"

Within a few years it may be determined which plan, with all it implies in shaping far-reaching educational ideals and practices, shall be national. The terms, "western" and "eastern" must not import provincial pride or sound a note of sectionalism. The examination by the separate college of the individual candidate, giving "personal contact" has failed on account of increase in numbers. The College Entrance Examination Board, organized in 1900, examined some 2,100 candidates this year — a Lilliputian effort as compared with the need to examine some 66,000 candidates. It has all the disadvantages of massed examinations, making it a gamble for the entering student and of judgment simply upon paper.

The New England College Certificate Board cares for some 2,000 candidates and has the virtue of resting upon the judgment of the teachers acquainted with the pupil. But it lacks any note of nationality and is without provision for any proper inspection and accrediting the schools.

President Hadley has just announced that for the present, Yale will adhere to the separate examination system. Yet President Hadley personally would give teachers of proved ability the opportunity to

recommend for provisional admission to the freshman class. Thus President Hadley is not far from the kingdom of the outright accrediting system for which we hope he may become a leader, not only amongst his brethren of the eleven colleges in the New England College Entrance Certificate Board, but throughout the nation. The whole thing might be done if Commissioner Draper of New York and President Butler became his coadjutors.

The so-called "western" is really a development from the German plan. It, in some form, logically accompanied a state public school system crowned by a state university. It has been adopted also by private universities so that it covers the entire territory from the Ohio to the Pacific, and overflows into southern and eastern states. At present there are twelve state or state university inspectors in as many great western states — supplemented by visitors from great private institutions. In the North Central Association of Secondary Schools and Colleges, there has been for six years a Commission on Accredited Schools, at the heart of which is a Board of High School Inspectors. Uniform standards and entrance blanks have been prepared. But now a list of first-class schools meeting the standards of the commission is becoming an accredited list throughout the entire northwest.

The accrediting system has raised the standard of the work done. It has linked the secondary school into one system with higher education. It has given an increase of students entering college, and with better average preparation. At the University of Pennsylvania in the fall of 1901, of those entering by examinations 49 per cent. were conditioned as

against only 29 per cent. of certificated students. An investigation by Principal Ramsay showed that the certificated students excelled in mental ability five to one. In the general performance of college duties they excelled three to one. Professor Whitney of Michigan found that the average standing of the certificated students was more than one and one-half per cent. higher than for the examined student. Professor T. Gregory Foster, in the report of the Alfred Mosley Commission, rejoices that it is a fundamental principle in American universities that the man who is fit to teach is also to be trusted to examine his own students. He says the accrediting system of the middle west is a most significant plan and one rapidly spreading into the east. In the states where it has been adopted the whole educational system has been unified and strengthened. The barriers between various grades of teachers are being removed. The teaching of all classes of teachers is thereby made more direct, more stimulating and attractive to students. The accrediting system as versus the older, leaves the teacher and the taught free and thereby stimulates to better training. Professor Foster quotes President Harper as opposed to the accrediting system when he left Yale, but later as a firm believer in it as a result of his experience. The professor concludes, "It is perhaps one of the most noteworthy contributions of America to educational progress."

What we do must be done quickly. A national system (meaning thereby governmental co-ordination and possible inspection in harmony with the voluntary co-operation in many western states, concatenating secondary schools, colleges and universities)

will give modern interstate educational privileges, long needed to keep up with interstate commerce and life, and heightening national ideals and power.

We are thus led to a second question which I attempted to answer in a paper given at the last meeting of the National Association of State Universities.

"Can there be a co-ordination of the examining, certificate, and accrediting (including school inspection) systems for admission to college looking toward a common or national administration in the interests of students, colleges, and the preservation of standards?"

That there can be local co-ordination of the examination, certificate and accredited systems for admission to college is clear, because it is already accomplished in fact. It is true in many institutions. We have an excellent illustration in the report for the year 1904-05 of President Schurman of Cornell. He says: "In the year 1904-05 the number of matriculants presenting certificates in satisfaction of the entrance requirements was 317, and the number of schools they represented was 154. It is sometimes alleged that the scholarship of students admitted on certificate is lower than that of students who are required to pass examinations. But the experience of Cornell University does not support this contention. And consequently the Faculty sees no reason for disturbing an arrangement which, as Dean Crane points out, "is convenient both for the schools and the University." Nevertheless Cornell has from the first co-operated with the College Entrance Examination Board and many of its matriculants enter by the way of that Board's examinations. Thus of 1817 taking the Board's examinations in 1904, not less

than 251 announced their intention to enter Cornell University. A third avenue to the University is the Regents' diploma for New York state students: and with this credential 238 matriculated in 1904-05. There remains the method of entrance by examinations at the University, which are now given only in September, and of this method 27 availed themselves in 1904-05. The remaining members of the freshman class were admitted on credentials from other universities and colleges, or on Medical Students' Certificates." [1]

The Cornell case, showing that there can be a local co-ordination shifts the emphasis of our discussion to the question whether there can be a common or national administration in the interest of students, colleges, and the preserving of standards. That there is a tendency and need and a longing for a common, and indeed a national administration, is evident. The tendency springs from axioms of economic science like that of 'planless production makes waste.' The spirit of this era of co-operation and combination intensifies the longing and the need becomes positive as rapidity of transportation and communication facilitates migration. The unifying of the republic, the emphasizing of American ideals with a deepening consciousness of our world-wide relations, unite the tendency, longing, and need, into an aspiration and positive demand for recognition and development of a national system of education.

This appears in unexpected ways. President Schurman in his report, referring to Mr. Carnegie's

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[1] Cornell University, President's Report, 1904-'05, pp. 36-37.

professorial pensions, and Mr. Rockefeller's subsidies for general education in colleges, says:

"Both philanthropists have risen above the idea of a single institution and have grasped the conception of a national system of higher education. And the bounty is as splendid as it is unparalleled in the history of higher education in America. But relatively to the ideal of an efficiently organized system of higher education in the United States, it is only a beginning.[1]

President Hadley's last report,[2] true to the spirit of Yale, breathes with the thought of becoming national. He would gladly appropriate the genius of the state university. He cites Yale's work in forestry as "including the kind of public work which makes the modern university something more than a mere group of schools and elevates it to its highest possible rank — that of a public servant." He dwells upon considerations of public duty as affecting the requirements for admission. He says:

"If the Yale requirements should get so far out of the line of work furnished by the better kind of high schools in the country that we could not expect to get boys from those schools, we should soon become a local institution. Yale would be a school for boys of one kind of antecedents, instead of for boys of all kinds of antecedents; and as soon as it became a school for boys of one kind of antecedents only, it would lose its value as a broadening influence to its students and as a factor in the life of the whole nation.

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[1] Ibid. p. 74.

[2] "Science," Oct. 27, 1905, p. 514 and following.

"Our policy with regard to entrance requirements is thus governed by two separate considerations: our duty to ourselves of not admitting boys except those who are able to do the kind of work which will be required of them, and our duty to the public of admitting all kinds of boys who can do this, on as equal terms as possible. Our student body must be at once hard working and national."[1]

He then made this surprising application of this splendid doctrine:

"In order to make ourselves national we admit boys to our undergraduate courses by examination only and not by certificate. We believe that the examination method is fairer to boys who come from distant places. The certificate system is the natural one for the state university, which draws its pupils chiefly from the schools of one locality and can inspect and examine those schools; but if a national university tries to apply this system it gives either an unfair preference to the boys from schools near at hand, or an inadequate test to the boys from remote ones."[2]

The plausibility of this conclusion disguises the logic of the actual present conditions. As if one institution could become national by refusing recognition to the arrangements of great national groups of secondary schools and colleges like those of the New England College Entrance Certificate Board, and those of the College Entrance Examination Board of the Association of Colleges and Preparatory Schools in the Middle States and Maryland, and the accrediting system of the state and private uni-

[1] Ibid. p. 518.
[2] "Science," Oct. 27, 1905, p. 519.

versities and colleges, particularly as unified through the Commission on Accredited Schools with its board of high school inspectors, in the North Central Association of Colleges and Secondary Schools! How can an institution hope to become national by becoming isolated and local in setting its own examinations? Under this idea confusion becomes worse confounded as institutions multiply with aspirations to be national but insisting upon making their own examinations. What a reversion this is, is evident in the light of the approximation to something national which began to appear through the three or four great provincial organizations just mentioned, covering most of the national territory. By the same token that the certificate system is a natural one for the state university, it would seem to be the one for a national university.

The great state universities draw their students from many states and countries, and have learned by a system of comity that they can safely accept the inspection and accrediting of sister state universities. In fact, with the exception of but three prominent institutions, Harvard, Yale and Princeton, have we not arrived at a practical co-ordination of the examining, certificate, and accrediting systems in that the institutions in the great provincial organizations above referred to, upon occasion accept the testimonials issued by the authorities of any one of these systems? It only remains to see that what the student migrating from one of these great provincial groups to another accomplishes in entering an institution, is safe-guarded from fraud or misinterpretation, and that positively uniform and high standards

are maintained by the establishment of a proper channel for exchange of documents.

A common administration could be established through a delegacy consisting of secretaries of the existing provincial organizations. Indeed, the College Entrance Examination Board affords a hint as to a way to do it. They provide that representatives of the secondary schools on that board may be appointed by the New England Association of Colleges and Preparatory Schools, the Association of Colleges and Preparatory Schools of the Middle States and of Maryland, the Association of Colleges and Preparatory Schools of the Southern States, and the North Central Association of Colleges and Secondary Schools.

"Each association may appoint one secondary school representative for every three colleges and universities represented in such association and admitted to membership in the board":[1] but under the limitation that the colleges must be admitted by vote of the board to membership, and that the number of secondary schools appointed by any one association shall in no case exceed five.

The scheme of the College Entrance Examination Board strictly interpreted it will be seen, is not automatic; it requires election and is exclusive of anything but the examination system. Let these associations inaugurate a movement by having a conference of representatives from the associations, to which also representatives of Harvard, Yale and Princeton might be asked.

The first step of a common administration, co-

[1] Educational Review, October, 1904, p. 65.

ordinating the examining, certificate, and accrediting systems seems relatively easy. When we import the term *national* administration in the higher or governmental sense, the difficulties are greatly increased and differences of opinion will multiply. For one, however, I venture to believe that the movements under way will not rest until in some conservative way we have a national attachment — that is, a governmental point of attachment. It must be conceded, in the words of Commissioner Andrew S. Draper upon the legal status of public schools, "that while they are not national, neither are they local institutions — rather are they state institutions." [1] In another place he says: at the close of the Revolution, "It was easily conceived to be a function of government to *encourage* schools." [2]

"Since the American school system has come to be supported wholly by taxation, it has come to depend upon the exercise of a sovereign power. In the United States the sovereign powers are not all lodged in one place. Such as have not been ceded to the general government are retained by the states. The provision and supervision of schools is one of these. Hence the school system, while marked by many characteristics which are common throughout the country, has a legal organization peculiar to each state." [3]

Great as are the systems of state schools covering the most of the land and culminating in New York in the most complete state system, unifying the

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[1] Proceedings and Transactions, N. E. A., 1889, p. 183.

[2] Education in the United States, edited by Nicholas Murray Butler, Vol. 1, 1900, p. 5.

[3] History of Education in the United States, Dexter, p. 202.

public and private institutions, they do not satisfy, but on the contrary they feed the hunger for a national system, or better, for a federal co-ordination of the state systems. The state of New York blazes the way for an analogous plan blending the private and state institutions and relating them to the federal government.

An objector will recall the legal status above conceded, and specifically that the Bureau of Education is only advisory, a collector of statistics and an educational clearing house.[1] But as "necessity is the mother of invention," and brought forth after the Civil War with the need of education in the South for the freedman and for the immigrants through the advocacy of a Barnard and a Garfield, in 1867 the Bureau of Education, so again, following the Spanish-American war, necessity for education in our new possessions including Alaska, has tended to a development of the Bureau of Education.[2]

The committee on resolutions of the National Educational Association, Nicholas Murray Butler, chairman, brought in a report adopted by the Association earnestly urging "upon Congress the wisdom and advisability of reorganizing the Bureau of Education upon broader lines; of erecting it into an independent department on a plane with the Department of Education; and of so constituting the Department of Education that, while its invaluable function of collating and diffusing information be in no wise impaired, it may be equipped to exercise effective oversight of the educational systems of Alaska and of the several islands now dependent upon us, as well

[1] History of Education in the United States, Dexter, p. 202.
[2] Addresses and Proceedings, N. E. A., 1901, p. 435.

as to make some provision for the education of the children of the tens of thousands of white people domiciled in the Indian Territory who are without any educational opportunities whatever.

"Such reorganization of the Bureau of Education and such extension of its functions we believe to be demanded by the highest interests of the people of the United States, and we respectfully but earnestly ask the Congress to make provision for such reorganization and extension at its next session. The action so strongly recommended will in no respect contravene the principle that it is one of the recognized functions of the national government to encourage and to aid, but not to control, the educational instrumentalities of the country." [1]

Dr. Butler, in an editorial in the Educational Review, 1901, follows up the subject conservatively:

"Questions of erecting the Bureau of Education into an executive department, with a seat in the Cabinet, as was proposed by Senator Hansbrough's bill, introduced into the Fifty-sixth Congress, or of organizing it on the same plane as the Department of Labor, are not necessarily involved, and may wisely be postponed until public opinion on the subject is better informed and more clearly formulated. All immediate necessities could be met by an amendment of existing law that should provide for a bureau of education with two divisions: a division of statistics and reports, to do the work now done by the Bureau; and a division for supervision and administration, to take up the oversight of the school systems of Alaska,

[1] Addresses and Proceedings, N. E. A., 1900, p. 31.

of the white residents in Indian Territory, of Porto Rico, and of the Philippine Islands." [1]

With our eyes opened by *foreign* needs in this era of a new nationalism, would it not be well to turn them upon our greater *domestic* educational needs and the needs of our own white children, for developing the Bureau as shown by the subject we have in hand. Some sense of such needs stirred the National Association of State Universities a year ago to appoint a committee consisting of Presidents Van Hise and Jesse to draft a memorial to enlarge the function of the Bureau of Education.[2] Without an amendment to the act establishing the Bureau of Education, might it not find authority with comparatively small addition to its expenditures, to act in place of, or in conjunction with, the delegacy above proposed? The law says, it shall "aid the people of the United States in the establishment and maintenance of efficient school systems and otherwise promote the cause of education throughout the country." Let it federate and co-ordinate our present school systems. Let it endorse and promulgate national standards. Local systems and institutions would be free to accept them or not; indeed, national inspectors might complement state and institutional inspectors; the national inspectors visiting upon invitation and without authority, as indeed is the case with the majority of state inspectors. The national inspectors could validate the work of local inspectors for remote parts of the country. The individual colleges would upon occasion, now in this, now in that

[1] Educational Review, Vol. 21, 1901, p. 528.

[2] Transactions and Proceedings, National Association of State Universities of America, 1904, p. 23.

subject, be at liberty as they now are even in the most highly developed accrediting systems, to give examinations to an entering student.

In fine, the proposals of this paper apply the doctrine of evolution. We grow from the systems we now have. We correlate them. We leave liberty to each institution and group of institutions to favor the system or lack of system it may have. All that is asked is an open door policy instead of an exclusive one. Ultimately the best system or combination of systems will survive. In the meantime, there will be a germinal genuine American system looking toward a national one in harmony with our new nationalism.

At this point the National Association of State Universities adopted the following resolution and commissioned me to present it to this association with the hope that you would appoint a delegate, and I respectfully recommend that you do so, the other association mentioned in the resolution having already done so.

"RESOLVED, that the Executive Committee of the National Association of State Universities be authorized to seek for the appointment of a joint committee consisting of at least one delegate from each of the following organizations: The New England Association of Colleges and Preparatory Schools; The Association of Colleges and Preparatory Schools of the Middle States and Maryland; The Association of Colleges and Preparatory Schools of the Southern States; The North Central Association of Colleges and Secondary Schools; and The College Entrance Examination Board.

"The said joint committee to present a plan for interrelating the work of these respective organizations in establishing, preserving, and interpreting in com-

mon terms the standards of admission to college, whatever be the method or combination of methods of admission, in order to accommodate migrating students and to secure just understanding and administration of standards."

Is it too much to see in the conference this resolution calls for the first step toward American Federation of Learning? May we not be near the fulfillment on a national plane of a great movement that has already issued so happily in the federation of colleges and secondary schools within our North Central district?

In 1893, at the Williams College Centennial, filled with the spirit which a little later organized our association, a prophet honored by President Harper as by all of us, Acting President Judson — then Dean Judson — looked forward to the forming of what he called the American Federation of Colleges and Secondary Schools. He indicated the ends to be attained: "*Every* course of study in *every* secondary school shall always lead directly to *some* course of study in *some* college."[1] He asserted that these ends would demand "definite federation among our institutions of higher and secondary learning. This is better than the uniformity of state control because it is free, it is natural, it is in strict accord with the genius of institutions with which we are entirely familiar." "Such a federation should include not colleges alone, not secondary schools alone, but both; and those not in one state or section but in the nation at large. And obviously also such combined action must be initiated by institutions of high rank, capable already of maintaining a good standard of

[1] Williams College Centennial Anniversary, p. 137.

scholarship. None should be considered which are not able or willing to reach the agreed grade."

The wonderful thing is that Dean Judson venturing to prophecy as to details as well as principles, has proved a true prophet. He says "The federation would provide for adequate supervision and tests of secondary schools to insure the high character of the diploma." He thinks most colleges would sooner or later prefer the diploma plan when sure that the secondary diploma means a definite thing. He perceives also that some colleges would prefer to require examinations and that they would not be debarred from continuing them despite the new plan.

A second great step toward the American Federation of Learning I believe is about to be taken. It is involved in the first step, as again the foresight of Dean Judson beheld. The programme of this session of our association for the third year in succession takes up a discussion as to this step, which I trust may issue in action. Reference is made to requirements for baccalaureate degrees, and the action is the inspection and accrediting of colleges.

Again falling back to Dean Judson: in 1893 he said: "There should be a general unity in the amount and kind of education indicated by the given baccalaureate degree. Many of them are mere fiat parchments. In some states there is to-day as much 'wildcatting' in colleges as sixty years ago there was in banking. Every college degree should everywhere be the equivalent of its face value. Should the federation be formed, the degrees of a non-federated college would at once be known as mere 'educational shin plasters'."

At this meeting of the association is not the time

ripe to extend the work of the Commission on Accredited Schools to make a provision for a list of accredited colleges co-ordinate with a list of accredited fitting schools? As our committee on requirements for the bachelor's degree last year reminded us, we have votes of the association which would afford two points of departure: one, that no college in the association shall give the degree of Ph. D. for less than two years of study; and two, that no college in the association shall admit students to the freshman year with less than fifteen units of work in preparation.

It would seem to the Chair that we have the machinery in our present Commission on Accredited Schools and Colleges in the points as to teachers, equipment, etc., in the blanks of our board of inspectors, points which may be paralleled for colleges.

With delicacy, and perhaps with daring, I would indicate a third step toward the American Federation of Learning in setting up standards and accrediting universities as contradistinguished from colleges. The powerful development of germinal and real universities since the founding of this association would call for an expansion of its title to be The North Central Association of Universities, Colleges, and Secondary Schools. The inchoate classification exists by the highest test in a commercial age — that of the purse — in that our membership annual fee is ten dollars for each university, as over against five dollars for each college. Universities are mentioned in the article for membership as if they were a link between colleges and secondary schools, the reading being, "Colleges and Universities and Secondary Schools." This may be a good omen, as the univer-

sity stands for the highest education as contradistinguished from the higher, of the college. The university has the college on the one hand, and the secondary schools on the other. In our present membership of sixty-six secondary institutions and of thirty-four higher institutions, nineteen are called universities, seven of them among the largest and strongest, private, and twelve, state. With such an apparent fortunate balance it would seem to be a favorable moment for the adjustments and accrediting of the three kinds of institutions.

The Association of American Universities, consisting of fourteen institutions, irreverently called the "Ph. D. Trust," may, possibly be the forerunner of something more thoroughly American. It will primarily set up standards by adhering to which institutions may become members instead of beginning with election, and seeming no doubt somewhat unjustly exclusive. In any case, in our happy North Central family let us set up university, as well as college and secondary school standards. Facetous though it may seem, in seriousness we may see in the standards in athletics set up by our Association, and administered by the "Big Nine" Conference of institutions among us, and beginning to be recognized in the east, an advance toward the Federation of Learning.

The next advance toward an American Federation of Learning is being crowded upon us by the various national associations of professional colleges like those of medicine, law, dentistry, and pharmacy. These associations decidedly mark progress. They, however, and the educational institutions we represent would greatly benefit by federation. They are

more beset than are we with the temptations of an age of commercialism. The more or less false distinctions between practical and theoretical, between the supposed interest of mere practitioners, as contradistinguished from professional schools, may hamper them. The ancient and honorable professions must be reckoned with, and are in a position of less open responsibility to the public. Of necessity, in the interests of the people legislation must be more quickly precipitated in these fields than in the purely educational. By all these tokens, it is so much the more imperative that there should be as speedily as possible an American Federation of Learning at least by conference and correspondence upon the part of the great educational and professional associations.

Yet again, the affiliation of the highest national institutions like the Smithsonian and the Carnegie Institution, and the numberless learned societies and local academies and museums with our established educational institutions should be accomplished and have some representation in associations like this.

Dimly in the more remote future may not one foresee a confederation of the American Federation of Learning with that of Labor. In labor's world-wide competition it must have not only unions and federations of them, not only industrial education, but also commercial, social, and intellectual. Even the classic must be linked with the technic. The cultured, christianized capitalist and the educated workman must be at one, going out from the same school. It is significant that our association includes technical colleges and manual training schools.

The broad scope we have given to our subject may

cause someone to query if we are not trenching upon the field of the National Educational Association, and in particular upon that of the National Council of Education. We think not. That association as the preamble of its constitution indicates, is primarily for teachers, to "advance the interests of the profession of teaching." The object of the Council is primarily "to reach and disseminate correct thinking on educational questions." Its sphere, invaluable in its place, has proved to be that of thought, not of action. The National Educational Association of necessity is a great mass meeting, and carries out admirably Horace Mann's valuable idea of education by convention. Its departments represent the crystallization of interests along horizontal lines. It tends toward a stratification of education and thought. This North Central Association, on the contrary, has perpendicular lines. It therefore coordinates; it stands for action, integrating the highest with the lowest and permeating the whole field of education and life. The American Federation of Learning of which we dream will therefore be along the lines of this, and its great sister provincial associations. With so vast a country, to represent local necessities and freedom, and for purposes of administration, can we do better than to recognize the political unities of states as fundamental, but with these unities in groups of provinces like our North Central, according to the great natural divisions of the country, as the national Bureau of Education has indicated them.

In this no longer the mid-west, but the magnificent mid-lands of our nation, solemnized by our opportunities and responsibilities, with renewed zeal

and with the prophetic vision as broad as that of humanity, let us continue by deeds more than by words to promote an American Federation of Learning.

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The report of the Treasurer, Principal J. E. Armstrong, Englewood High School, Chicago, was presented as follows:

## REPORT OF THE TREASURER OF THE ASSOCIATION FOR THE YEAR ENDING MARCH 23, 1906.

RECEIPTS.

| | | |
|---|---|---|
| Cash on hand at date of last report | $118 10 | |
| From the sale of reports and blanks | 22 70 | |
| From sixty-four $3 memberships | 192 00 | |
| From twelve $5 memberships | 60 00 | |
| From twenty-one $10 memberships | 210 00 | |
| Total | | $602 80 |

DISBURSEMENTS.

| | | |
|---|---|---|
| Postage | $5 50 | |
| Express | 1 33 | |
| Exchange on checks | 85 | |
| Stenographer | 8 00 | |
| Expenses of committees | 210 04 | |
| Printing | 231 58 | |
| Total | | $457 30 |
| Cash on hand | $145 50 | $602 80 |

J. E. ARMSTRONG,
*Treasurer.*

Mar. 23, 1906.

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The Executive Committee recommended the following institutions and individuals for membership in the Association:

FOR INSTITUTIONAL MEMBERS.

University of Notre Dame, Notre Dame, Indiana. The Rev. John Cavanaugh, D. D., President.

Washburn College, Topeka, Kansas, Norman Plass, President.

Rockford College, Rockford, Illinois, Julia Gulliver, President.

Drake University, Des Moines, Iowa, H. M. Bell, President.
Olivet College, Olivet, Michigan, E. G. Lancaster, President.
The Miss Wolcott School, Denver, Colorado.
The High School of the University of Chicago, W. B. Owen, Principal.
Council Bluffs (Iowa) High School, S. L. Thomas, Principal.
Dubuque (Iowa) High School, Frank L. Smart, Principal.
West High School, Des Moines, Iowa, W. A. Crusinberry, Principal.
Sterling Township High School, Sterling, Illinois, E. T. Austin, Principal.
South Division High School, Milwaukee, Wisconsin, Edw. Rissman, Principal.
Wayland Academy, Beaver Dam, Wisconsin, E. P. Brown, Principal.
Michigan Seminary, Kalamazoo, Dr. Gray, President.
Charlotte (Michigan) High School, M. R. Parmelee, Superintendent.
Glenville High School, Cleveland, Ohio, H. S. Cully, Principal.
Central High School, Columbus, Ohio, W. M. Townsend, Principal.
South High School, Columbus, Ohio, C. S. Barrett, Principal.

FOR INDIVIDUAL MEMBERS.

F. C. Ensign, High School Inspector, The State University of Iowa.
President Charles E. Shelton, Simpson College, Indianola, Iowa.
E. O. Holland, High School Inspector, University of Indiana.
H. L. Terry, State High School Inspector, Wisconsin.
F. J. Miller, High School Inspector, The University of Chicago.
T. Morey Hodgman, High School Inspector, University of Nebraska.
Frederick C. Hicks, Professor in the University of Cincinnati.
W. H. Johnson, High School Inspector, University of Kansas.
M. M. Ramer, Superintendent of Public Instruction, South Dakota.
Nathaniel Butler, Professor in the University of Chicago.
Thomas Arkle Clark, Dean of Undergraduates, The University of Illinois.
Wilbur O. Carrier, President of Carroll College, Waukesha, Wis.

On motion the recommendations of the committee were adopted and the institutions and individuals named above were elected to membership in the Association.

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The report of the Committee on Athletics was introduced by the Chairman of the Committee, Principal E. L. Harris of the Central High School, Cleveland, Ohio, as follows:

*To the Members of the North Central Association of Colleges and Secondary Schools:*

In accordance with the resolution presented by Dean Woodward, last year, that the Athletic Committee be authorized to have the new rules printed and distributed, the Committee prepared the circulars covering the regulations as printed in the Proceedings for April, 1905. The following request accompanied the distribution of these circulars: "Will you bring these rules before your faculty or governing body; will you kindly report the action of said body to the member of the Committee designated to attend to the correspondence from your state, noting at what time you can put the rules into effect if adopted?" A sufficient number of these circulars were sent to the Secretary of the Association for the institutional members; two hundred were sent to each member of the Committee — to be distributed among schools not members, that is, for missionary work. Very few answers were received by the Committee, but nevertheless the results have been very gratifying. For example, the colleges of Ohio, the Big Six, have practically adopted these rules; the secondary schools of the state have also adopted them. In one city, Cleveland, the Board of Education has approved the rules, making them practically obligatory. Favorable reports of the good work among the secondary schools of other states have been received.

I have asked Professor Waldo to present the report of the college section of the Committee.

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Professor Clarence A. Waldo, of Purdue University, then presented the report as follows:

## REPORT OF THE COLLEGE SECTION OF THE ATHLETIC COMMITTEE.

Twice a year or oftener the faculty representatives of the Nine Chicago Conference Institutions meet in Chicago to legislate on athletic matters. Their action, however, is not final until it has been ratified by the allied institutions. Objections to be effective must be filed with the Secretary of the meeting within sixty days from the time of receiving his official report. Any institution not heard from before the expiration of the allotted time is counted as voting in the affirmative; a unanimous vote makes the proposition at once Conference law. If any objection has been made, the action is reviewed at a subsequent called or regular meeting of the Conference. If it is once more adopted by a majority of the Conference it goes back again to the faculties of the institutions when a two-thirds affirmative vote is the minimum required to make it law.

When a regulation has been thus adopted any Conference institution is in honor bound to enforce it strictly or withdraw from the Conference. This is stated in order that what follows may be clearly understood.

Subsequent to the athletic season of the Fall of 1905 the long gathering storm of popular disapproval broke about the game of football. Early in January, President Angell of Ann Arbor, very properly took the initiative and called a meeting of faculty representatives of the Conference Colleges, which convened in Chicago, January 19, 1906. Professor Pattengill opened the meeting by reading the following letter from President Angell.

*"Gentlemen of the Conference*:

Since, on the suggestion of some of the universities here represented, I have invited you to meet here in conference, I trust it will not be deemed presumptuous in me to call attention briefly to some of the points which will claim your consideration.

I presume that all of you, like me, have looked with favor on the introduction of athletic games, including foot-ball, into our universities. In many respects they have been of great service. But I presume also that in the opinion of us all the present relation of our game of foot-ball is not what we desire.

The general complaint in the public press is of the roughness and dangerous character of the game. Now, while it is desirable, and I hope practicable, to remove some of the objection to the present style of playing, I think that we who administer universities will agree that there are other objections to the present mode of carrying on the game quite as serious as the roughness in the play. Let us notice some of them.

1. Under the actual organization the absorbing interest and excitement of the students—not to speak of the public — in the preparation for the intercollegiate games make a damaging invasion into the proper work of the university for the first ten or twelve weeks of the academic year. This is true not of the players alone, but of the main body of students, who think and talk of little else but the game. The season given up to this excitement is too long. The games are too many. The number should be reduced. It is a fair question whether without resorting to intercollegiate games the competition of classes and departments in any university would not furnish

games enough for healthy rivalry. It would probably spare us the presence of thousands of spectators from outside.

2. The present conditions constantly hold before the students and before the world false ideals of college life. Not only in the college journals, but in the newspaper press of the whole country the students who by daily descriptions and by portraits are held up as the great men of the university are the men of brawn rather than the men of brains. Their slight ailments are chronicled with as much promptness as are those of a King in his Court Gazette. Their names are daily carried by the Associated Press from ocean to ocean. Not only undergraduates but school boys are filled with aspirations to follow in the footsteps, not of the best scholars, but of the best players.

3. The university is necessarily viewed in a wrong perspective. It is looked on as training men for a public spectacle, to which people come by thousands, instead of quietly training men for useful, intellectual, and moral service while securing ample opportunity for reasonable athletic sports. Indeed the intellectual trainers are made to appear as of small consequence compared with the football coach trainer.

4. The expenditure of money in the preparation for the game is out of all proportion to what a rational provision for exercise and games for students ought to call for. I need not go into details. I will only add that where so much money is handled for such purpose, the temptations to misuse are not wanting.

To preserve what is good in the game and to rem-

edy all the incidental evils which have gathered about it may not be easy. But I trust that this Conference will enter upon the task courageously and reach some helpful conclusion to take back to the nine universities represented. I believe your Faculties are ready to support you in any wise measures which are calculated to diminish the evils complained of, or still better to cure them altogether."

A Committee consisting of Professors M. W. Sampson of Indiana University, F. J. Turner of the University of Wisconsin, T. F. Moran of Purdue University appointed to make a statement of the evils of the present situation reported as follows:

"The Conference called to consider the intercollegiate game of football and its relations to college life, finds in the general situation a condition of affairs that imperatively demands a change. It is not to our minds a question between modifying the game or leaving it alone; it is a choice between suspending the game as an inter-collegiate sport, or cutting away its evils.

These evils we find to be many, some of them open, some hidden from the general knowledge, and most of them difficult to deal with save by radical reformation. The evils fall into two general classes: those inherent in the playing rules of the game as it stands at present, — the evils of physical danger and of brutality, — and the moral evils attending upon the gradual raising of the game into a thing of absorbing and sometimes hysterical public and collegiate interest. Whether the game itself has called these latter evils into existence, or whether the swerving aside from the standards of true sport has en-

dangered and brutalized the game, is not now the important matter. The main fact is that the game itself must be reformed as a game, the far more serious degeneration in athletic standards must be checked, and a healthy condition restored.

Such a healthy condition exists we believe, not in the severe practice and playing of a very few experts, but in the general and active participation in wholesome outdoor exercise by practically the whole student body. The present system fails to supply the natural need of general exercise and substitutes for it a mere show or athletic exhibition of trained performers for the pleasure of spectators, who themselves receive no athletic benefit.

At the bottom of all the difficulties is the misapprehension, obvious in college communities, but no less wide-spread in the general public, of the relation that a form of physical exercise bears to the educational life of an institution of the higher learning. Football has been shifted from its position as an admirable, wholesome outlet of vigorous physical activities, and has been made to offer opportunity for the manifestation of many extreme, nervous and illogical tendencies of modern college life. To be specific, the following harmful conditions are noted:

The large number of games played and the length of the season as a whole, are detrimental. The interest of a college, of a whole town, and indeed to some extent, of the entire public is held for a long time at more or less high tension, to the exclusion of far more important interests; and the consequences of the prolonged strain are marked in the physical and mental condition of the members of the

team, and in the scholarly efficiency of the students in general.

This heightened excitement, occasionally artificially kept up by various devices for arousing "enthusiasm," involves unreal ideals of university manhood, exaltation of the athlete above the student, bitter rivalry with friendly institutions, unfair judgments of these institutions, suspicions of underhand treatment, and the employment of methods either illegal or barely within the letter of the law, — the result being to create a feeling that the main matter of importance in the autumn semester is to turn out, at all hazards, a winning football team.

Professional coaching constitutes another one of the abnormal conditions of the situation. While much good has resulted from the instruction given by expert athletes of high, sportsmanlike ideals, nevertheless the present pressure upon a coach to develop a winning team or to lose prestige, perhaps to lose his position, is an incessant temptation to secure players in all sorts of ways, and to instruct them to utilize in playing, various means to defeat the spirit of the rules of the game.

Along with this is the zeal of many alumni, who, loyal in intention, but yet unguardful of the real honor and good name of their Alma Mater, raise or contribute money to pay the expenses of athletes in college, thus professionalizing them and corrupting the student sentiment.

Obviously wrong, are the recruiting of students by coaches, managers, alumni and others, for essentially athletic purposes, the excess of severe and prolonged training, the moral evils frequently following the abrupt breaking of training at the end of the

season, the hardship upon students, who are called to give undue time and money to intercollegiate games, the notion that a championship must be contended for, the too great publicity given to minor details of practice, and the like, the adoption by the high schools of distorted notions of college ideas and college customs, and the excesses — such as betting — attendant upon all contests, that are especially pronounced when the public is as great as it is in football.

The Conference therefore desires to eliminate from the general conduct of the game certain wholly unnecessary evils — extravagances in salaries and the purchase of supplies, the over-long season, the too frequent games, the centering of the interest in the team as distinguished from the general participation of students in athletics, and the wholly false emphasis that is laid upon what cannot be regarded as anything other than an incident in college life."

After careful consideration and much discussion the Conference finally sent a series of recommendations with a unanimous vote to the Conference institutions for action by the several governing bodies:

Seven of the nine institutions adopted these recommendations without essential modifications, two of them, however, Chicago and Wisconsin expressing a preference for the unconditional abolition of football for two years. The remaining two institutions, Indiana and Michigan specially objected to the abolition of the independent high-priced professional coach. Michigan, especially, found that her contracts made it necessary for her to persist in her objection even if in so doing she might be compelled to

withdraw from the Conference in which for so long a time she had been a leading and influential member.

The second Conference called by President Angell and made necessary by the objections mentioned, convened March 9, 1906 and was in session two days.

At the second meeting there were few propositions to consider — the question of the professional coach occupying most of the time. The final form of the new legislation proposed by the two Conferences and unanimouslv adopted by the nine institutions is as follows; — with the one exception noted all are effective September 1, 1906: —

1. "That no student shall participate in intercollegiate athletics until he shall have been in residence one year and shall have completed one full year of work, in addition to meeting the entrance requirements of the college of Liberal Arts of his institution, or its equivalent."

2a. "That no student shall participate in intercollegiate athletics for more than three years in the aggregate."

2b. "And that participation be confined to students who have not graduated from any department of a college or university."

(a) To be effective September 1st, 1906, except for students who participated in intercollegiate athletics in the academic year, 1905-1906; for these it shall be effective December 1st, 1906.

3. "No foot-ball team consisting in whole or part of college students shall play with high schools, academies, or independent professional schools."

4. "That not more than five games of intercolle-

giate foot-ball shall be played by any team in any season."

5. "That the regular Conference rescind its present rule which does not count as participation the first three games of foot-ball in each season."*

6. "That freshman foot-ball teams and second elevens play only with teams from their own institutions."

7. "That the price for admission to intercollegiate contests for members of the University be not more than 50 cents including reserved seats."

8. "That there shall be no training table or training quarters for any athletic team."

9. "That the competent University officer state in his certificate of eligibility,

a. That the student has passed all entrance requirements.

b. That he has passed all intervening work as regularly required in his University for the period involved.

c. That he is taking full work in the present semester."

10. "That no coach be appointed except by University governing bodies on the recommendation of the Faculty, or President, in the regular way, and at a moderate salary. This recommendation to become operative as soon as existing contracts in the several institutions permit."

11. "That there be no preliminary training prior to the beginning of instruction."

12. "That the foot-ball season end the Saturday before Thanksgiving."

* The regular Conference recommended that this rule be rescinded at its session on March 10, 1906.

13. "That steps be taken to reduce the receipts and expenses of athletic contests."

14. "That the athletic surplus be devoted as far as possible to permanent University improvements and that the financial management of athletics be entirely within the control of the Faculty which shall publish a report of the receipts and expenses."

Further it was adopted:

A. That the Conference recommends that the game of football as played at present be abolished as an intercollegiate and collegiate sport in the Conference colleges.

B. That the Conference awaits from the Rules Committee such modification of the playing rules as will free the game from brutality and unnecessary danger.

C. That in the event of such alteration not being sufficient the Conference will delegate a committee of its own to draw up rules.

D. That if a satisfactory game can thus be established the restrictions recommended by the Conference shall apply to its conduct and management.

This record should not be closed without some mention of Prof. A. H. Pattengill who in 1898 succeeded Prof. J. H. Knowlton as Michigan's representative in the various Conferences and who suddenly passed away the 16th of this month to the great sorsow of all who knew him. As a young man Prof. Pattengill was a notable athlete and all through life he retained an ardent love for young men and sympathy with them. His observation was keen, his counsels wise, his hand firm; and in the steady progress in athletic affairs here in the Middle West he has held a commanding position. We may rest as-

sured that he regretted more than any of us that existing contracts seemed for the time being to place his own institution as an obstacle in the path of progress.

His memory will remain fresh and fragrant in the hearts of thousands who never met him within the confines of his own beloved college to which he gave his strength and his life.

At its annual meeting in 1903 this Association through its Committee on Athletics set up an Athletic program. No mention was then made of the game of football itself but of additional needed regulations to eliminate moral evils then too manifest in intercollegiate affairs and increasing. The things then demanded and which this Association set out to secure if possible were, a year residence with a clean record in scholarship, repudiation of recruiting agents and agencies, graduate and amateur coaching without pay, reasonable disarmament, lower admission fees, the cultivation among students of higher and truer types of manhood, honor and courtesy, absolute business publicity and a worthy record of athletic achievement. All this was based upon the fundamental statement that intercollegiate athletics must be amateur or should not exist.

It is interesting in this connection to note the direction of recent athletic reform. The year residence rule is now an accomplished fact and it is reinforced by a scholarship rule, by limiting participation to three years in the aggregate and by confining team membership to undergraduates.

This is splendid, and, in our opinion, is the soundest kind of legislation; when faithfully carried out

by academic faculties it alone will almost universally restore sanity to our intercollegiate athletics. It is liable to fail only when tremendous money interests are at stake or where the high-priced irresponsible professional coach is firmly seated.

The Conferences have provided for lower admission fees, for absolute business publicity and for an athletic record and for the ultimate abolition of the high-priced and irresponsible professional coach. A four-year contract in one institution prevents this last clause from going into immediate effect in every institution. But the deatb blow to the system has been dealt. If all other institutions quickly lop off this excrescence in our college life, the single remaining coach will find himself too lonesome to remain for four years more. It is a cause for rejoicing that the evils attendant upon the high-salaried professional coach system, already pointed out to this Association three years ago have now come to be generally recognized and acknowledged. As was then said, and it is just as true to-day "Several years ago we legislated the foreign professional coach off the teams, we should now legislate him off the campus." This was said then and is said now with malice towards none and with full recognition that irresponsible professional coaches may be good as well as bad. But the system is evil. Can you make anything else out of it? Happy will it be for our students and the colleges which exist for our students, when he has gone never to return. Secure the services of a physical director who is animated with the spirit towards the young usually found in the professor of Greek, Latin or Mathematics. Treat him the same way. Give him the

same honor. Provide ample outdoor and indoor facilities for all your students to run and jump and throw the weights; to play football, baseball, basketball, lacrosse, hockey, golf, tennis; to swing on the rings, climb the ladders, circle the bars and tumble on the mats; in short to make the brain clear, the heart strong, the nerve steady; but no longer be a party to a transaction which allows one man to take possession of your students, train them as gladiators, to enter them at the risk of life and limb in a great spectacular contest, for what? Chiefly for his own glory and gain?

With reference to the game of football itself the two Angell Conferences took strong ground.

Does the interest in football depend in any large measure upon the ever present expectation that in every scrimmage some one will be hurt? If it does, it brutalizes the spectators. If it does not, then what is the use of playing the game that way? Without protective armor every member of any recent team would have been at times on the hospital list. And yet football that is attractive to both player and spectator does not require such clumsy, unsanitary accoutrements. Last fall one Rugby fixture in England drew, according to report, an audience of eighty thousand. Look in some of our leading magazines during or immediately following the last football season and note a series of illustrations which show the contrast between the ugly, awkward armor of American football and the lifht, free and graceful uniforms that serve for Rugby football.

If we can agree upon nothing else that is sensible let us adopt straight out the present English Rugby game, or the Association game, for our colleges and

secondary schools. If these games then need further development to adapt them to Americans, let us proceed along sane lines.

Recently news came from Michigan that the presidents of the colleges which compose a minor Association in that state, would allow students to participate in intercollegiate base ball who had received money for playing on summer teams. In other words these presidents have legalized professionalism in one branch of college sport. Do these honored educators believe that men who play base ball for money will not also under such circumstances be for hire in the colleges themselves? And do they believe that star players will not soon go to those colleges bidding highest for their services? And the teams like running horses will give a fine basis for gambling! Follow that thing through in all its ramifications and see where it lands you. Our splendid American game of base ball has been sinking lower and lower in public esteem. Our strong-hearted, moral and religious element no longer support it, and the league contests are taking on more or less of a hoodlum character. Now that professional base ball is in a well recognized moral decline shall we arrange conditions about our colleges so that our students shall hobnob with drifting, illiterate, professional base ball players or become useless professionals themselves? Which under such conditions is more likely, that the students will elevate the game or that the game will degrade the students? Profession base ball has no place on the college campus; Brown University not long ago proved that to her satisfaction. Owing to the difficulties of the base ball situation, a movement has gained considerable strength to do in our

leading Conference precisely what the Michigan presidents have done. Should the Chicago Conference in an unfortunate moment vote to remove amateur restrictions from college base ball, there is certainly only one thing for an institution to do that sees with level eye and that is to abolish base ball altogether as an intercollegiate sport and refuse to allow any team to represent it in the field until better times should come again.

Chicago Conference territory as is well-known embraces the states of Michigan, Wisconsin, Minnesota, Iowa, Illinois and Indiana. Besides these Ohio is well organized in a Conference of its own and is working out results as thorough and desirable as the older and larger organization.

In Missouri the State University and Washington University have taken the lead in an admirable way, have organized college and secondary school sentiment and have joined with the universities of Kansas and Nebraska in an agreeement to support the best ideals in sport.

At present, however, the Chicago Conference takes the lead in our athletic affairs.

In conclusion we wish to put five resolutions on their passage.

1. *Resolved*, That as far as we are able we will secure in the institutions which we here represent the adoption of the recommendations of the two recent Angell Conferences.

2. *Resolved*, That we reaffirm the fact that we will do what we can to hasten the disappearance of the irresponsible professional coach, football, baseball and coaches of other branches of athletics.

3. *Resolved*, That we will maintain strictly amateur baseball teams or abolish the game altogether as a branch of intercollegiate sport.

4. *Resolved*, That this Association recommends to the colleges here represented that for the year 1906 they adopt the rules for playing the game soon to be promulgated by the so-called Chicago Conference.

In many institutions the character and ideals of the manager of athletics have been a source of much difficulty to those who have striven steadily for the best.

The manager is in a position to nullify what he does not wish carried into effect; if he openly or secretly belongs to the forces of corruption he can act as a connecting link between the buyer and seller, at the same time thoroughly covering his own actions. The Committee thinks it important that the attention of the Association be more emphatically directed towards this man whose influence for good or evil is so great, and would suggest to the Association the necessity of a wise choice on the part of college authorities. If he is to be a student as is of necessity often the case, it is thought that the fifth resolution here appended may help to clear the situation.

5. *Resolved*, That the athletic manager, if a student, should be chosen only from among those students who completely fulfill all the eligibility requirements which our rules exact from members of our intercollegiate and interscholasic teams.

EDWARD L. HARRIS,
Central High School, Cleveland, O.

C. A. WALDO,
Purdue University, Lafayette, Ind.

A. A. STAGG,
University of Chicago, Chicago, Ill.

C. M. WOODWARD,
Washington University, St. Louis, Mo.

J. E. ARMSTRONG,
Englewood High School, Chicago, Ill.

W. J. S. BRYAN,
Central High School, St. Louis, Mo.

It was moved by President Kirk that the report be adopted.

It was moved in amendment by Chancellor Chaplin, that the fourth resolution be referred back to the committee with the request that the committee keep the members of the Association informed of all actions adopted in the premises by the "Big Nine." The motion in amendment was adopted and the report as thus amended on motion was adopted.

On further motion the Committee was requested to express to the Association as soon as possible its recommendations concerning the new rules and its opinion concerning their character and desirability.

On motion it was ordered that the report of the Committee on Athletics be printed and distributed in pamphlet form at an early date.

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The following report was presented by Principal E. L. Harris, delegate to the College Entrance Examination Board:

## REPORT OF DELEGATE TO COLLEGE EXAMINATION BOARD.

*Mr. President and Members:*

I attended the meeting of the College Board last spring, following our last annual meeting. The work done was of a technical character in preparation for the coming examinations. A proposition was presented to the Board to join the work with the N. Y. State Regents, but the plan was finally rejected. I placed your resolution, in reference to the new English Requirements, before the Board. A Committee was appointed, consisting of President Thomas, Presi-

dent Thwing and Professor Wilson Farrand, to report on the request at the next meeting.

I was called again to the fall meeting of the Board and twice this winter, but I was unable to attend, and was excused by the Board. The following report of the action of the Committee and of the Board was sent to me.

"Your Committee unanimously submits the following report: Whereas the legitimate function of the College Entrance Examination Board as such is not to frame entrance requirements on the various college preparatory subjects, but to set papers and conduct examinations in accordance with the entrance requirements recommended for adoption in each subject by authoritative organizations of specialists; and whereas the Conference on Uniform Entrance Requirements in English announced three years ago the English Requirements for 1906-'07-'08, which have since been adopted by the greater number if not by all of the colleges belonging to the Board, your committee deems it inexpedient and opposed to the precedent set by the Board to grant the request of the North-Central Association of Colleges and Preparatory Schools to proceed immediately to set the examination papers on the requirements adopted by the Conference on Uniform Entrance Requiments in English for the years 1909-'10-'11, and your Committee therefore recommends that the request of the North Central Association of Colleges and Preparatory Schools be refused."

On motion the report was accepted.

The President then announced the following committees:

*To audit the Treasurer's report:* Professor Marshall S. Snow, Washington University; President John R. Kirk, State Normal School, Kirksville, Missouri; Principal George W. Benton, Shortridge High School, Indianapolis, Ind.

*To recommend time and place of the next annual meeting:* President Henry C. King, Oberlin College; Superintendent A. F. Nightingale, Chicago, Hon. Geo. B. Aiton, State Inspector, Minneapolis.

*To nominate officers for the ensuing year:* Professor F. N. Scott, University of Michigan; Principal Frederick L. Bliss, Detroit University School; President Homer L. Seerley, State Normal School, Cedar Falls, Iowa; Director George N. Carman, Lewis Institute, Chicago; President James H. Baker, University of Colorado.

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The following paper was then presented by Principal George W. Benton, of the Shortridge High School, Indianapolis, Ind.

## SINCE HIGH SCHOOLS ARE COSTING SO MUCH WHAT CAN COLLEGES DO TO ASSIST THEM IN MEETING THE DEMANDS OF THE PUBLIC?

PRINCIPAL GEORGE W. BENTON, SHORTRIDGE HIGH SCHOOL, INDIANAPOLIS, IND.

More than sixteen years ago President Eliot said, "The secondary school, taken as a whole, does not exist for the purpose of preparing boys and girls for college. Its main function is to prepare for the duties of life that small proportion of the children in the country, (a proportion small in number, but very important to the welfare of the nation) who show themselves able to profit by an education prolonged to eighteen years, and whose parents are able to support them while they remain so long at school." If we have since modified the statement of the case, the idea given by President Eliot has undoubtedly remained practically unchanged.

With this view of the purpose of the secondary

school, it becomes at once a question of the needs of the community in which the school exists. That secondary school which, in a community of wealth, has for its main business the preparation of boys and girls for classical colleges, has quite a different purpose from that of the school which exists in a community where the utility of the preparation is measured by its income-producing power. The character of the school must meet the needs of the local community. If five per cent of the total enrollment of the school are going to college, and the college preparation must be given at the expense of the time and energies of teachers which should be given to the ninety-five per cent for whom other preparation is desired, it is very evident that the public will demand an accounting, and insist upon a modification of the course of study, and the habits of instruction which the school affects. It makes no difference in the relations of the school to the public whether the public demand is approximately in accordance with the highest ideals of the educational theorist; the fact remains that the public high school is an institution of the people, created for their benefit and intended to carry out their desires. Should the direct aims of the public not be the aims of educational people, the duty of the school is still to the public, and while the school is meeting the demands of the public, it must strive to mould public opinion as nearly as possible to an approximation of what the school should be.

For the purpose of this article, the community may be divided educationally into three classes. Those who oppose secondary education at public expense; those who are enthusiastically in sympathy

with it, and those who are entirely indifferent, or, at least, are inactive, neither for nor against the school. Fortunately for education, the first class is comparatively small where the school is doing creditable work. Its influence is usually far-reaching, however, because the representatives of this class are frequently able to touch the people upon one point that is always vulnerable — that of taxation. This class also usually has the use of the columns of the daily press where articles of a character likely to be injurious to the progress of high ideals in general education can be exploited. This class of obstructionists also usually includes the unfortunate wealthy who are childless, or who have the aristocratic aim of the private school to foster. As a natural consequence, what this class lacks in number it makes up in influence.

Here, obstruction is the result, regardless of the often-expressed admission that the schools are doing a great work in the community, the claim being that this work is done at a cost that is incommensurate. The second class is made up of a large body of intelligent citizens who themselves have had the advantages of secondary education at public expense, whose children are now enjoying its benefits, and who have the definite knowledge that the education offered in the public school is far beyond that which the individuals themselves would be able to compass with private means. They further realize that whatever the expense is or may be, the educational product, as expressed in high quality of citizenship, is an investment which is indispensable to the state. The third class is composed of those indifferent people found in every community in entirely too large numbers,

who do not interest themselves in public school affairs, who sometimes send their children to school to get them out of the way, and, who, because some children fail in life, are ready to charge the school with their failure. This class is always ready to cheer the pessimistic utterances of the enemies of public education, and to cry that the public is taxed without value received.

The real occasion of anxiety for the future of the secondary school is not to be looked for on the general ground of the utility of the school, but from a consideration of its enormous and rapid growth. The development of the common schools, while extensive, has been more gradual. There is no opposition to this, even from the enemies of the high school, provided the increase in the available cash keeps pace with the development of the schools. But the case of the high school is different. In some cities within the same time that the population has doubled, the attendance upon high schools has quadrupled; and, whereas, high school teachers could be engaged readily a few years ago, at anywhere from $700 to $1,200, to-day these figures do not begin to express the expense. Again, intelligent men have been heard to say that high school teachers ought not to receive any more pay than grade school teachers, in spite of the fact that the demands made of high school teachers in preparation and living, are greatly in excess of demands on grade teachers. Again, the grade teacher in most cities is expected to handle forty to fifty pupils at the same time that the high school teacher handles twenty-five or thirty. More than this, the cost of equipment for the handling of secondary subjects is frequently large. As a consequence the rapid

increase in the attendance upon the high school, and the greater per capita cost of instruction, not only in respect to the expense for teachers, but for equipment and even for buildings, are just now in many cities bringing secondary schools sharply up before the people for serious consideration.

The people are asking, "are the needs of our children being met by this expensive institution; are the demands of college entrance requirements, which are largely influencing the course of study in most schools, interfering with the proper training of our children in the other lines of work which, in our opinion, they should have?" In many schools which have a portion of their subjects required, and offer electives as a part of the requirement for graduation, some parents have discovered that at the end of the four years' course, even when the work has been well done, the character and variety of the work are not such as to meet the requirements of some college upon which they have decided for their child. It does not matter that the work done is of a high character; that the training received, although along a different line from that prescribed by the institution in question, has been thorough, and that it has developed in the child a power to think and to do, which renders him able to take his place among his fellows. These parents are asking what should be a standard of fitness for entrance to college. Is it specific preparation in certain grooves? Why should it not be a question of capacity? They look over the catalogues of the colleges and, unless the principal is exceedingly tactful, they will discover that the committee of this association appointed to consider requirements for the bachelor's degree, was justified in assuming that

the work of the commission on accrediting schools might well include the work of accrediting colleges. This committee found, as they stated in their report, that in attempting to unify the various systems of units, tabulation involved great difficulties; that many catalogues are vague or indefinite in the statement of requirements, and in some cases decidedly inconsistent. A reference to the tabulation given on pages 38 to 46 of the report of the tenth meeting of this association will show that there is an amazing diversity of requirements. Any one who undertakes to tabulate these study schemes for himself, as I have done, will have this forced upon him in no uncertain way. The duty of the school to the parent in question cannot be ignored, for is the school not his school? And has he not the right to expect that four years work shall produce results in his children which have been produced in the children of others?

One has only to go through the volumes of the National Educational Association reports from 1890 to the present time to realize that decided improvement has been made along this line. There are certain definite things which all colleges require and which all schools might well require as a basis for graduation. There certainly can be no objection to requiring three years of English, two and one half years of mathematics, one year of history, one year of science, and three or four years of a language other than English. Colleges generally require these and more. A college president, discussing an article on universities and schools, by Superintendent Cooper, in the N. E. A. report of 1891, deplored the number of subjects already in the high school which were not needed for college preparation. He thought that the

time for the education of the child could be greatly shortened; not by shortening the college course but by shortening his preparation. The inference is that at that time the college requirements were not as high as now. But it is only necessary to consider the present requirements of a few of the leading colleges of the country, to discover that the boy or girl who expects to enter college unconditioned, cannot deviate from a fixed line of work covering four subjects each year for the four years; and that none of these pupils, unless they be unusually strong physically and mentally, will have time to do anything else. Mr. Wilson Farrand, of the Newark Academy, has a plea in the January issue of the Educational Review for the reduction of the present college entrance requirements. He claims, and his claim is certainly justified, that a pupil, to meet a sixteen point requirement, must carry twenty recitations per week for the entire four years, and that this does not include such subjects as music, drawing, elocution, manual training and other important topics among which could be mentioned certain commercial subjects. Comparing his statement with the statement of the college president in 1891, it will be seen that the colleges are crowding the preparatory work in such a way as to threaten a deterioration of its quality, and at the same time to preclude the possibility of touching certain phases of education which many persons rightfully believe have an important work in development. Mr. Farrand further notes that not only does the entrance requirement demand the student's full time for four years, but that the very nature of the requirement makes it practically impossible to do one-fourth of it in the first of those four years. Some of the col-

leges insist that the final examinations upon which the school is authorized to certify its pupils shall be given within two years of entrance to college. Certainly such a subject as ancient history can be handled by first year students with difficulty, if at all, to the satisfaction of the college. As a consequence much of their work must be reviewed in the last two years of the course, and the school may rightfully be charged with overdoing its work, and forcing its pupils beyond their strength.

"Forty years ago," says Mr. Farrand, "the requirements at Yale amounted to just nine points; to-day they are practically doubled, and what is true of Yale is true of the country at large." I should not advocate a return to the nine point requirement referred to, but I cannot help being impressed with the fact that a marked improvement in the quality of the work of the secondary schools has produced a preparation far in excess of that which the colleges ought to demand along fixed lines. Time should be available in the life of the secondary student for certain so-called practical subjects which will influence his preparation as a social being, whether he is to go to college or not, and particularly if he is to go to college. He should be familiar with the elements of commercial law which, too frequently, is a closed book to those who consider themselves educated. He ought to have time for some elementary studies in sociology, studies which might possibly improve upon his tendency to make class scraps and pipe dreams the business of his college course. Professor Nathaniel Butler, of Chicago University, in an article in the February number of the School Review, compares in a very interesting way, the special prep-

aration for life's vocation with the development of a many-sided interest. He has summed up the whole problem, it seems to me, in a very clear way in a single paragraph which I quote. "We have, I believe, found out another thing: that while the two, the establishment of a many-sided interest, and preparation for vocation are indispensable parts of education, and never absolutely separable, the emphasis shifts from stage to stage of the educational process; and that the thing of chief importance in adolescence is a setting up of the many-sided interest, not in opposition to special preparation, but as an indispensable pre-requisite to special preparation." He further touches upon the use of two words—"culture" and "education." The former, he undertakes to define by mentioning two distinct marks of culture, namely "an appreciation of the finer things of life," and "intelligent sympathy with all great human interests." He modifies Herbert Spencer's definition of education, that education is a preparation for "complete living" by stating that education is training for "social efficiency." While Greek, Latin, French, German and other preparatory subjects so valuable and so universally pursued have their influence in the accomplishment of these two great aims in the development of the child, namely, culture and education, there are many thoughtful people, and the number increases, who believe that drawing, music, manual training, commercial geography and commercial law are equivalent, if not more direct and more concrete means to the same end. There is no doubt that the intelligent public, not interested at all in a survival of antiquities, believes in making use of the best which the world offers of our own as

well as of earlier times. It is often inclined to take the liberal view of the proper means of education and culture which we "heretics in education" are disposed to look upon with favor. I have often wondered whether it would not be easier for the advocates of the old iron clad course of study and of the domination of the high school course of study by the college, to come near gaining their end by admitting gracefully the possibility of education by other means than those believed in from the earliest times.

To illustrate: the orthodox Presbyterian of today talks very little about the doctrines of Calvin, and the orthodox Methodist does not often indulge in similar discussions upon Wesley. Intelligent men are coming more and more to consider questions of life from the vantage point of what we know and believe, and not from what those men believed as a result of their narrower experience. There are many who believe that happiness attained, is not to be measured in terms derived from an inadequate system of belief, but from a system based upon modern conception of modern things.

Some time ago the following questions were submitted to one hundred secondary school men throughout the country, including among others, every high school represented in the membership of this association:

*Question 1.* Have you noted a growing suspicion among the public that the high schools are costing too much in proportion to the grades? There were 61 answers: 8 schools in large cities and 10 schools in small cities answered "yes"; 14 schools in large cities and 25 schools in small cities answered "no";

4 replies were received from township and private schools: all answered "no".

Among the miscellaneous comments which have been culled, I note the following: "not growing"; "not where the high school works for the people"; "past maturity;" indicating that conditions were exceedingly alarming. Some said "yes, by persons who object to paying school taxes on general principles," and some said there were no complaints although, to their minds, complaints would be justifiable.

As will be seen from the answers to this question, a very large per cent of the schools interested enough to reply, were ignorant of, if not entirely free from the unrest which some of the schools observe. It is a matter for congratulation if there is so little criticism throughout the country, but I cannot help thinking that it is only a matter of a very short time before this question will have to be met by practically all secondary schools, especially in rapidly growing cities, and I would state in passing that undoubtedly to the conservatism of the colleges in their dealings with the high schools is very largely due the indifference of the schools toward the question.

*Qucstion 2.* Have claims been made that the demands of the people for utilitarian subjects are not being met? If so, are they justifiable? There were 64 answers to the first part of the question: 36 "yes"; 28 "no". To the second part of the question — as to justness of claim: 8 schools said "partly"; 16 schools said "yes"; 9 schools said "no".

Some comments on the replies in the second part are of interest:

One said "criticism is just if the high school is to serve practical ends." Another said "manual training will meet it."

Of the 28 who replied that the claim is not made that the demands of the people are not being met, 7 said that they had manual training.

*Question* 3. To what extent do college entrance requirements influence the organization of the course of study in your school?

There were 70 answers: 24 stated that the college entrance examination requirements practically dictated the course of study. 3 replied that "they merely influenced the course of study;" 5 replied "considerably, in some branches, particularly in languages;" 3 replied "do not affect graduation standards at all"; 6 replied "that they were the reason for introducing certain electives, resulting in some cases in small classes"; 22 replied "not much, have a college preparatory course"; 7 replied "considerably, have electives."

If we were to combine these groups into two, those affected by college entrance requirements, and those not, we should find the percentage overwhelming on the side of direct influence of college entrance examinations on the organization of the course of study.

*Question* 4. What are the other things which determine graduation standards?

There were 58 answers: 6 "experience and tradition"; 3 "best interest of pupil"; 3 "school board"; 7 "preparation for life"; 12 "preparation for business"; 7 "preparation for Normal"; 2 "preparation for professional school"; 1 "growth of power of pupil"; 2 "social demands of pupils"; 4 "local conditions"; 7 "satisfactory completion of four years, or 16 or 15 units work"; 3 "regents' standard" (New York State); 1 "horse sense, only"; (Whether the

individual in question means to infer that college entrance examinations do not involve this much desired quality, I could not determine.)

*Question* 5. Are there any subjects, well-taught, not accepted for college entrance which, in your opinion, should be accepted?

There were 32 answers: 11 "yes"; 21 "no", or no definite suggestion.

Twenty-seven subjects were suggested from one to fourteen times as subjects which might be given credit by the colleges with advantage. These suggestions might be placed in three groups, which were very generally desired, namely:

1 — business courses, 2 — political economy and civics, and 3 — arts courses, including manual training, mechanical drawing and domestic science.

*Question* 6. Would a liberalized college entrance standard aid you in satisfying the people that they are getting value received?

There were 59 answers: 27 "yes"; 15 "no"; 9 "liberal enough now"; 5 "probably"; 1 "yes, if uniform;" 1 "let colleges meet high school conditions"; 1 "Western colleges are too liberal now." (Private school.)

If we combine these seven groups, we get those for and against liberalized college requirements: 34 in favor; 25 opposed.

I should like to add my approval of the statement that Western colleges as a whole, are too liberal now. This statement is not true of the best colleges in the West.

*Question* 7. Would better agreement among colleges as to entrance units help in preventing unfavorable criticism of high schools?

There were 36 answers: 25 "yes"; 11 "no".

I feel very sure that you will be interested in hearing some of the reasons for these answers. Among the affirmatives the following comments were made:

3 said, "make it easier for those who decide late to go to college"; 1 said, "pupils could get preparation without going to private schools or being privately tutored"; 6 said, "would prevent some schools being criticised as not preparing for certain colleges"; 1 said, "the requirements in English and the languages should be cut down"; (I infer that this statement applies to four years of English and the requirement of certain colleges for a second and third language.) 12 said, "greater uniformity should exist, for example: an arrangement like the college Entrance Board"; 4 said, "would enable schools to concentrate more"; 1 said, "would check the further raising of the standard of requirements for entrance beyond the capability of the schools." (This was referred to by only one writer, but it is a statement worthy of our attention. The history of the relations between colleges and secondary schools shows that as soon as the high school has been able to raise its standard to meet a certain condition, the college has immediately announced an increase in its standards, until the present unsatisfactory condition has been settled upon us.) 1 said, "would enable schools to co-ordinate general and particular courses"; 2 said, "would make requirements more definite, for example: four units of Latin instead of one, two, three or four"; 1 said, "by being content to exert slight influence over the high schools"; 1 said, "some colleges take pupils without diplomas, thus destroying our influence."

(This is another point in which we are particularly interested, and in which my school is most vitally concerned. Last year as many as five of my athletes who would do nothing in school, and who were declared ineligible for athletics, were eagerly taken up by three of the institutions of higher education in Indiana, one of whose professors recently said in a public meeting, that "the ethical standards of the high school must come down from the college." Fortunately, I was present on the occasion when this statement was made, and had the opportunity of relating to a rather amused audience come of the particular applications of this out-pouring of ethical standards.)

To turn to those who answered "no" to this question, the following statements were made:

"Those who 'criticise' know little about 'units.'" "Diversity of requirements is more apparent than real." (I feel very sure that there are many principals who would agree with me that the persons who believe the last statement are unusually adept with their calculations.)

*Question* 8. Is there any other way in which colleges can aid high schools in meeting the demands of the public?

31 offered no suggestions. A number of suggestions were made by others, some that are worth consideration. They are as follows: "Have college men who know about public school work; if possible, let more of them be teachers." "Accept certificate of the state superintendent (as to qualification of the candidate for entrance.) "College should give less attention to worn out ideals and more to real problems of life." (There were several suggestions

of this sort.) "Colleges are not close to popular demand." "Should set a good example of morals and order." "Should publish their reports on high school inspection." "Should aid in better organization of the whole school system." "Should promote more friendly relations with the high schools." "Should drop foolish requirements of 'so many pages in language,' or 'so much time for a unit,' and should accept certificate of capacity to do certain work." Several declared that the colleges should accept certificates of maturity, good character, etc., without regard to the character of the training. There was quite a general feeling that the colleges should train better teachers. (My experience has led me to suspect that the enormous increase in the attendance of some of our universities is due in part to teachers of doubtful success, who enter these institutions and get degrees, in the hope that what they cannot accomplish by their efforts and worth, may be secured by the degree.) "Should have a course in commerce." (From Wisconsin.) (All school men should read in this connection the article by Mr. Herrick in the *School Review,* of February, 1906, on the Educational Value of a Commercial Course in the High School.) "Should insist upon quality, not quantity." "Should give more credit for science and manual training." "Should get advice from secondary school teachers on entrance examinations." "Should give advance credit, if earned." "They do pretty well now." (For example, the work of the College Entrance Examination Board.)

My observation of the work of the College Entrance Examination Board for several years, has been that there is a tendency on the part of the

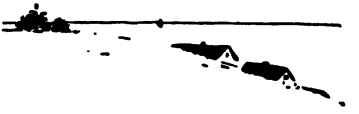
examiners to make the work rather too difficult. Several boys who are preparing for Harvard have told me that they would prefer taking the Harvard examination rather than the College Entrance Board examination, on the ground that the College Entrance Board examinations were much more difficult and much more likely to be variable in scope. It would be a very unfortunate thing if such an excellent organization, which has for its main purpose the unification of college preparation, should become unpopular in its zeal to maintain high standards. It is always wise for the teacher to sit down and remind himself occasionally that the only way in which he can meet the problem of the child is to recall his own childhood.

There has been no disposition on my part in discussing this question to undertake to show the colleges what they should do. I feel that my duty and my capacity have been exhausted when I bring to your attention some of the conditions which prevail, and threaten the progress of the best things in secondary education. Again, some of the suggestions of other men who have studied the situation might possibly bring about a solution of our present difficulties. There can be no doubt that a frank and open discussion, and a thorough realization of the relations which exist and which should exist between secondary schools and higher institutions of learning, will develop a better feeling and a larger capacity for good with us all. With these questions crowding upon us, it seems hardly a fitting time to give much attention to the question of the six year high school, however desirable it may be in itself.

I shall consider that this paper will have ac-

complished all that I could possibly hope for it, if it arouses vigorous discussion.

On motion the discussion of Principal Benton's paper was deferred until the second session.



## Second Session Friday Afternoon

The Association was called to order at 2 o'clock p. m., by the President, who announced for discussion the following question:

Are State Boards of Medical Examiners justified in excluding from their examinations the graduates of Medical Colleges that allow advanced credit for work done in a college of liberal arts?

Frank Billings, M. D.,
The University of Chicago.

President J. H. T. Main,
Iowa College, Grinnell.

Fred C. Zapffe, M. D.,
Secretary of the Association of American Medical Colleges.

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The Secretary read the following letter:

THE MINNESOTA STATE BOARD OF MEDICAL EXAMINERS.

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O. E. LINJER, M. D., SECRETARY, MINNEAPOLIS.

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*Secretary's Office:* 24 *South Fourth Street.*
MINNEAPOLIS, Feb. 3, 1906.

Professor J. V. DENNEY, *Secretary North Central Association of Colleges and Secondary Schools.*

DEAR SIR: Your letter to Dr. Wm. Davis, St. Paul, a member of our State Board of Medical Examiners, has been referred to me. I regret to say that it is impossible for any of the members of our

State Board to be present at the meeting of your Association. The views of the Minnesota State Board of Medical Examiners on the question of recognizing Medical Colleges granting advanced standing for work done in other than Medical Schools may be briefly stated as follows: The laws of this State require four years of study in a *Medical School,* a diploma from a recognized Medical School, and a satisfactory examination before the State Board of Examiners, for a license to practice Medicine. This is the law of the State. The Board can not change it, simply enforce it.

This State will never consent to shorten the course of Medical study, indeed, another year will be added at the first opportunity. The preliminary educational status of candidates appearing before this Board will in the future be closely scrutinized. We hope to secure a pre-medical educational qualification at the meeting of our next State legislature. The medical profession and the people in general of Minnesota urge and demand now, that a pre-medical training equivalent to at least two years study in the academic department of our University, be made a requirement of medical candidates for licensure.

The day is not far distant in this state when four years academic and five years medical work will be required of all who wish to enter upon the practice of Medicine.

Respectfully submitted,

O. E. LINJER, M. D.,

*Sec'y State Board of Med. Ex.*

Dr. Billings then addressed the Association. The Secretary was unable to obtain a satisfactory report

of Dr. Billings' remarks, owing to the failure of the stenographer.

## ARE STATE BOARDS OF MEDICAL EXAMINERS JUSTIFIED IN EXCLUDING FROM EXAMINATIONS THE GRADUATES OF MEDICAL COLLEGES THAT ALLOW ADVANCED CREDIT FOR WORK DONE IN COLLEGES OF LIBERAL ARTS?

PRESIDENT J. H. T. MAIN, IOWA COLLEGE, GRINNELL, IOWA.

I understand the term "work done in colleges of liberal arts" to mean, work in the pure sciences that are essential to medical training. It should be understood at the beginning that colleges do not ask for credit for the bachelor's degree, irrespective of the kind of work offered for the degree. The question has to do with courses in colleges of arts which may be assumed to be equivalent to courses given in the medical colleges.

With this interpretation of the question — and as a college man I should not wish to consider any other interpretation — the answer is plainly this, that credit should be given provided it meets the requirements demanded by medical standards. The examination set by an independent board of examiners is intended to eliminate all possibility of prejudice and partiality in the antecedent training, and ought to be adequate to provide a test for all the elements involved in the work done by the candidates. It ought not to be more difficult to determine this matter in the case of subjects taken in colleges of arts than in the case of those taken in medical colleges. Medical

colleges are of different grades of excellence; colleges of arts are of different grades. It is the business of the board of examiners to secure a certain degree of uniformity in the product of the medical colleges, and not to refuse outright to accept for examination students who have received credit for college work.

I do not wish to be understood as criticising examiners for safeguarding in all legitimate ways the standards of medical preparation. The people have a right to all the protection the law can provide, and college people will be the last to find fault with any method that will tend to increase the efficiency of the medical practitioner. The colleges are ready to insist on the strictest requirements, and would unanimously support a movement looking toward the requirement of the bachelor's degree as preliminary to matriculation in a medical school. An arrangement of this sort would at once eliminate the question of *time credit* in medical schools for college work, and answer the question we are now considering to the satisfaction of all — except, of course, those medical colleges which might refuse to adopt this standard of admission. Until medical colleges become university colleges, that is, until they require a college degree for admission, the question now before us, will be an important one.

There are four possible ways of determining the fitness of candidates for admission to practice :

1. By accrediting the medical schools, and admitting graduates from such schools, to practice.

2. By the examination of candidates who have had the equivalent of four years of medical training, so attested by a diploma from a reputable medical college.

3. By a method combining examination, and accrediting.

4. By examination, on presentation of a sworn statement that four consecutive years of seven months each have been spent in a medical college, and that no credit has been given for college work, this statement to be accompanied by the diploma of the medical college.

The fourth method is the one adopted, essentially, by the State Boards of Minnesota, Iowa, and South Dakota. It is the method with which institutions in the middle west are chiefly concerned.

The primary purpose of such a regulation would seem to be to discredit the work of the colleges in the *pure sciences* fundamental to medical training. It indicates that the medical authorities have arbitrarily excluded, as unworthy of consideration, all college work whatsoever. It means that histology, embryology, bacteriology and other subjects that have medical applications, have no value in the estimation of examiners, unless they are taken in a medical college. These subjects, however adequately and thoroughly they may be taught in the colleges as pure sciences, are not only to be rejected by the medical colleges, but the examiners assume to deny recognition to medical colleges giving such credit, in addition to denying the privilege of examination to individual candidates. To a layman this looks like an arbitrary and unwarranted regulation.

We are assured, however, that this method of examination is intended to prevent the indiscriminate giving of credit by ambitious medical colleges, willing to secure students at any cost. But there is nothing in the published regulations to suggest such

an intention. The whole aim seems to be to compel students to take four years, according to the definition of the board, in a medical college, regardless of the quality of the work as to goodness that might be done in the college of arts, and also regardless of the quality of the work as to poorness that might be done in the professional school. The board assumes that "Podunk Medical College" with poor equipment and inadequate teaching force will give better preparation in the pure sciences fundamental to medicine than any college whatsoever can give, under any possible condition of instruction and equipment. This method of treatment is not based on reasonable principles. If the board, by its examination, can determine the inadequacy of the teaching in a poor medical college, it might also be supposed to do it for a college of arts.

The regulation we are discussing virtually says to students that four years, or even less in a high school, provide a better preparation for medical education than four years in a high school and four years in a college. Isn't this a fair interpretation of the regulation which in effect says, "we shall accept you for examination with eight years of preparation provided four years have been in the medical school "(four consecutive years of seven months each)," but we shall not even admit you to the examination if you have had four years in a high school and seven years more in a college of arts and a college of medicine, unless you can prove that no credit was given for any medical work done in the college? Eleven years of preparation are discounted so that before the board they count for less than the eight years in high school and medical college. This point is emphasized

strongly by the fact that the student does not ask for a 'flat' credit for a bachelor's degree. He simply asks what is just and reasonable — an examination for work actually done, which examination is to be set by a board presumably competent to get at the facts.

Again such a ruling 'recommends' students who are obliged for pecuniary or other reasons, to shorten their period of preparation, to desert the independent college with no professional schools and go to the composite schools where the medical college and the college of arts are under the same management, and where the combined course of six or seven years may be taken without conflicting with the requirements of medical boards.

In general such an examination regulation tends to discourage, in this ambitious, hurrying age, young men from giving due consideration to the value of college training. In so far as it does this it is an injury of the most positive sort to the medical profession, and in the end it will work greater damage to the medical colleges than to the colleges of arts.

The medical gentlemen — those who support the regulation in question — tell us that they have been working hard to improve the "quality of medical students" and now that they have finally secured, after many trials and tribulations, consent to a high school course as a requirement for admission, they do not wish to be deprived of any of the fruits of their hard earned achievement, by giving the colleges the possibility of one year or less (even though it be equivalent and proven so by test) out of four additional years of preparation. A most excellent jest truly!

The medical colleges have before them for examination and answer questions that touch upon the very

secrets of existence, problems that demand the highest grade of understanding and training. They demand maturity. If the college of arts merely gave capacity for understanding, it would be worth while for the medical college and the examining boards to offer a premium to get it. But neither colleges of repute, nor students, ask recognition for this unmeasurable element. They ask for a reasonable chance to secure credit for what they have done. There is a broad, general basis of scientific principle involved in the study, for example, of histology. Now if the right man is teaching this subject, he will secure results that are invaluable for the medical man. The medical college needs men trained in that way — in fact it needs many more than the colleges, under present conditions, can possibly supply. If students entering the medical colleges do not have such training, they must get it after they matriculate. The medical schools would much better spend their time on the practical applications of the subject.

There is certainly a debatable ground between the college and the medical school. The college affirms that it can teach histology, embryology, and some other subjects as pure sciences in a way to meet the demands of medical science. The medical boards deny this, and affirm that no college man can teach a medical subject unless he is a doctor of medicine. The State boards ought to be able to settle this difference of view by examination. If the State board examination in a matter of that sort is unsatisfactory, it may be doubted whether it can reach the facts in other disputed points. If it *can* reach the facts, but deliberately chooses not to do so then it is guilty of an injustice to the candidate for examination, to the col-

lege, to the medical school, and to medical education itself.

On no reasonable basis is a State board justified in denying examination to medical graduates who have received college credit.

The consensus of opinion in the best informed quarters, the medical men themselves being the judges, is that properly equipped colleges can teach the pure medical sciences. Students with college credit have repeatedly demonstrated their ability to pass the most rigid examinations. The Medical Examining Board of Great Britain gives credit for such work. In fact it does more. It gives a year's "credit for chemistry, physics, and biology when studied in a teaching institution."

The traditional view regarding "culture subjects" will no longer hold. Many subjects, not long ago regarded as technical and professional, are now included in the college curriculum. The college will be expected to keep itself in adjustment with the demands of its time. If it does not do so, it has no special right to live. Hence it will, if need be, ask for recognition for the pure sciences in its courses of study which are fundamental to medicine. It will of course endeavor to satisfy all reasonable requirements in its teaching.

The question we are discussing is one of the highest importance to the educational interests of this country — especially to those of the middle west. The question is one, above all others, that requires coöperative treatment. It can not be settled by any one of the parties to the discussion, acting alone. There are three interests involved — the college of arts, the medical school, the State board. The North

Central Association of Colleges and Secondary Schools is in a position to contribute much to the wise and happy adjustment of the difficulties involved in the question. I suggest that a committee be appointed to investigate the whole matter and report at the next annual meeting.

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## ARE STATE BOARDS OF MEDICAL EXAMINERS JUSTIFIED IN EXCLUDING FROM EXAMINATIONS THE GRADUATES OF MEDICAL COLLEGES THAT ALLOW ADVANCED CREDIT FOR WORK DONE IN A COLLEGE OF LIBERAL ARTS?

BY FRED C. ZAPFFE, M. D., CHICAGO, ILLINOIS, SECRETARY OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Your Committee has asked me to discuss the affirmative of this question, and in doing so I voice the sentiment expressed by the majority of colleges represented at the last meeting of the Association of American Medical Colleges, held in Pittsburg, March 19, 1906. My personal views I shall refer to later.

Before answering the question put above, let us inquire into the reasons why a number of our State Examining Boards are refusing recognition to medical colleges that allow advanced credit for work done in a college of liberal arts. It is not necessary for me to call your attention to the fact that the mere possesion of a degree means nothing; that is, it may mean little or it may mean much. So much confusion exists in what we are pleased to term our educational system, that it is entirely out of the question

to attempt to formulate an adequate basis for the baccalaureate degree, one that would apply to every college, academy, and high school (there are high schools that are empowered to confer degrees). Furthermore, some of our best known institutions do not teach any of the subjects, except chemistry, that are embraced in the first or second years of the medical curriculum. In such instances we have been accustomed to grant a credit of one year in time to students coming from these colleges simply because it was customary to do so. Without entering into the value of a college training, both culturally and technically, there remains the fact that these students were obliged to put in a large amount of extra time. They were hurried in their work, and naturally it could not have been as good as it would be expected to be if the student had not received a time credit.

Under these conditions it is hardly fair to blame a state examining board for taking what appears to be an arbitrary step, because they have no means of determining what a degree represents. Of course, the literary school takes the position that the Board should examine the courses offered by colleges of liberal arts, but that is not the province of the examining board. As the matter stands at present, it seems that the colleges are rebelling against the abolition of the time-honored custom of recognizing a degree by allowing some credit for it.

There is no intention either on the part of the Board or the medical school to discredit a literary training;. nor do they desire to create the impression that a high school training is just as good as, or the equivalent of, a college training Every medical school would rather have every one of its matricu-

lants possess a college training than to have only a few, as is now the case. This matter is evoluting itself slowly, and in time the entrance requirement for the medical course will be a college degree. Many medical schools are now requiring one and two years of college training; a few are requiring three years, and two make the baccalaureate degree the prerequisite. One college specifies certain work that must have been done by the baccalaureate. Before the high school diploma was made the minimum entrance requirement, there was much discussion on why a high school graduate should not receive some credit when his education was superior to that of the student possessing only a common school education. We are in the same position now with reference to the relative superiority of a college training over a high school training. Therefore, I am convinced that it is only a matter of a few years before at least a part of the college course will be required for matriculation in a medical school.

Can the subjects embraced in the medical curriculum be taught efficiently in the medical school? Medical men say no. Why? In the literary college these subjects are taught as pure sciences, whereas in the medical school they are taught as applied sciences. Which is of greatest advantage to the practitioner of medicine? Learning the subject as a pure science, he does not receive any of the practical phases of histology, embryology, etc.; whereas learning them as applied sciences, he not only gets that phase of the subject, but also some of the pure science phase. It is claimed by medical men that this is an advantage, although they would prefer to have a thorough grounding both in the pure science and in the applied

science. However, as the matter stands now, with but few exceptions, we are obliged to choose either one or the other.

As a rule, the literary college does not spend as much time in teaching these subjects as does the medical school. The teacher is a scientist and not a practitioner of medicine. There is no disposition on the part of the medical man to depreciate the learning and ability to teach of the scientific man, but they miss in him that practical appreciation of the subject which is so desirable for the student who intends to enter the medical profession. The equipment in many literary schools is not only the equal of, but it is often superior to the equipment possessed by some medical schools. But in discussing this question we must bear in mind that we are not discussing the poor medical school or the poor literary college, but we are discussing what should represent the average.

I have been informed by one of your own number that there are not over a dozen, and probably not more than half a dozen, colleges in the country that are in condition to teach the medical subjects in a satisfactory manner. If that is true, then it seems that we are discussing something that is the exception rather than the rule. Nevertheless, these few schools are entitled to recognition. They must receive justice. If they are doing any work that is deserving of recognition, it seems to me that medical colleges and state examining boards should give credit for it.

What subjects of the medical course are taught by literary colleges? Chemistry forms a part of the curriculum of every college. Some colleges offer inorganic, organic and some physiologic chemistry,

while others offer only the first two parts mentioned. As a rule, with the exception, perhaps, of the chemistry of the carbon compounds, the average literary school is offering a course that is the full equivalent of the same work as it is done in the average medical school.

Biology and embryology are also taught by nearly all the literary colleges, but inasmuch as very few medical schools are offering biology in their course, it does not enter into the discussion at this time. Its value as a preliminary to anatomy is appreciated fully, which is shown in that the medical school does not include biology in its course. So far as I have been able to learn, only the pure scientific principles of embryology are taught; that is, but little time is spent on mammalian embryology, and that little time is put in on the fetal membranes. Hence, by comparing this course in embryology with that taught in the medical school (not including here the medical school which is an integral part of a university, state or otherwise), it will be seen that the two courses are entirely different; yet the student who has had the embryology in the literary school is better prepared to take up the work in the medical school, but these two courses are by no means equivalents.

Some literary colleges teach histology in connection with embryology, or biology, or physiology; but, as a rule, the course embraces only the technical side of the subject, that is, the preparation of specimens, stains, and so forth. A student who has had this course is familiar with the microscope, and with histologic technique, and in that he has the advantage over the high school graduate. He is better prepared to continue the work. A few colleges teach the whole

subject of histology, but without any reference whatever to its practical phase. It is not applied to medicine, but forms a part of the general training of the student.

While a few of the colleges are attempting to do work in physiology and anatomy, the consensus of opinion, even among college men, is that it is impractical for colleges to attempt this work. These two subjects come nearer being purely medical subjects than any of those mentioned previously, although no one can deny the value of a general cultural training including a knowledge of the principles of physiology. Nevertheless, the little work that can be done in physiology by the literary school would in no way apply on the course given by the medical school. As to anatomy, osteology can, without question, be taught by the literary college, but that is not half the anatomy taught in the freshman year in the medical school. So that it will be seen that but little of all this work can be made to apply on the medical course, surely not more than three or four hundred hours.

Should the prospective medical student do college work before entering the medical school? Yes, decidedly so. Although he now receives no time credit for the work done there, he receives subject credit and he has the advantage over the other students in that he has had a preliminary training that will enable him to grasp the work done in the medical school better and that will make of him, in the end, a better physician and a better man. It seems to me that this is a reward which cannot be appreciated enough. We need good physicians, and the college graduate, as a rule, is prepared to supply this demand.

This is a very difficult problem to solve. The medical school has rights which must be recognized, and the literary college has its rights. On the one hand, the medical school is unwilling to give up one year at the beginning of its course, and the literary school is unwilling to give up one year at the end of its course. I believe both are right, because in either case the student is missing something that is of more than passing value. It has been said that the senior year of the college course is the most important of the four. The freshman year of the medical course is also the most important of the four, because it is here that the student is initiated into the beginning of things, and at no time during the remaining three years can he make up what he has missed in the first year.

Granted, that an understanding can be arrived at between the two parties concerned, who shall be the judges? The colleges, the medical school, the state examining board, or parties not concerned in the controversy? Each would rather yield to the other, and yet none of the parties is willing to do the work. Universities are in a position to so mold their courses that the two dovetail, in a measure, but that does not help the unaffiliated college, or medical school. Is there only one solution of the problem? Must the baccalaureate degree be made the entrance requirement? In that case the courses of the literary college must undergo a most careful and thorough revision, so that the prospective medical student will get just a little more than a broad training. It is not advisable, neither is it desirable, that his course should be shaped to medicine, because we do not shape courses to law, to theology, or to any other profes-

sion, but the medical course is a longer one than any other of the professional courses, and, in fact, it is not long enough. Several medical colleges have added another year to their course, although that year is still an optional one. Before long, it will be required, and we shall have five years of work in the medical school.

The Association of American Medical Colleges adopted a resolution requiring four years of residence in the medical school. Next year that resolution will come up as an amendment to our constitution, and it seems now that the amendment will be adopted with as much unanimity as was displayed when the resolution was presented this year. In the Association are included not only the so-called independent medical colleges and the affiliated medical colleges, but university schools as well. Therefore, the sentiment which prevailed at our last meeting represents the opinions of all these schools. It seems to me that it is desirable that your association appoint a committee which will discuss this question with the college association at its next meeting, to be held in Richmond, Virginia, March 18, 1907, because only in that way is it possible to bring about harmonious action. It is useless for us to discuss this question, because we feel that we know what we want. You are in the same position. Both may be right, and both may be wrong. By discussing the matter together, the question can be solved in a manner that will be satisfactory to both parties. I trust that you will take some action on this.

PRESIDENT THWING:

I move that the President appoint a committee of

three to investigate this whole matter and to report at the next meeting of the Association.

The motion was seconded and adopted.

The President appointed the following: President H. C. King of Oberlin College, Dr. Fred C. Zapffe, of Chicago; and Dean Edwin A. Birge of the University of Wisconsin.

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The following paper was then presented by Director G. N. Carman, Lewis Institute, Chicago.

## SHALL WE ACCREDIT COLLEGES?

DIRECTOR G. N. CARMAN, LEWIS INSTITUTE, CHICAGO.

It is now five years since the commission on Accredited Schools was organized. It was made the duty of the Commission to do five things, three of which relate to the high schools and two to the colleges. We have confined ourselves chiefly to the high school part of the programme (1) by defining unit courses of study, (2) by securing uniformity in the standards and methods of high school inspection, and (3) by preparing a list of accredited high schools. With reference to the colleges, it was made the duty of the Commission (1) to serve as a standing committee on uniformity of admission requirements and (2) to formulate and report methods and standards for the assignment of college credit for work done in high schools in advance of the college entrance requirements. The admission requirements of the colleges and universities have, as a result of what has already been done, become more nearly uniform although the Commission has taken no action for the purpose of securing uniformity of admission requirements.

The Commission has done nothing however to encourage high schools to do college work by formulating standards for the assignment of college credit. To be sure we have gone on record as favoring the general principle that colleges should give advanced credit for secondary school work, the amount to be awarded being determined by the college which the student enters. But how shall the colleges determine the amount of credit to be awarded, and how may the schools know what to expect?

The Commission has not done as much as it was authorized to do in answering these questions. If it is desirable to encourage high schools to do college work, definite standards should be agreed upon in those subjects which may be taught in either high school or college. This means making definitions of units of college work as well as units of secondary school work and means accrediting colleges as well as high schools.

The advisability of extending the work of the secondary school into the college field is closely connected with the question of what should be the length and character of the college curriculum, so that it seems necessary to consider briefly the present state of this question, to which so much attention has been given since the organization of the Commission.

Taking the country as a whole, we seem to be farther apart in theory and practice as to the requirements for the bachelor's degree than we were five years ago. In President Eliot's address on American Universities delivered at Yale last November he said "Most of the universities receive their pupils from the secondary school in such a condition that they feel obliged to devote one year, or even more, to

studies appropriate to the secondary schools but not pursued there. They combine with these belated subjects a few of the most elementary subjects appropriate to colleges, and thus make up a prescribed Freshman year, or in some instances, a prescribed course for the Freshman and Sophomore years. This policy is of course a temporary one. It has already disappeared in some of the strongest institutions; and its complete disappearance in the American colleges and universities is only a question of time, for its evils are considerable. It reduces undesirably the number of years which the student can devote to the subject, or subjects, of his choice." President Eliot's position seems to be that all prescribed work is secondary school work and should be completed before the student enters college; that the student should not enter a college or a university until he is prepared to specialize; and that no institution should be called a college or a university that does not furnish opportunities for one to devote his entire time to the subject or subjects of his choice. It is the policy of Harvard to give the bachelor's degree after the student has had an opportunity of doing three years of special advanced work.

President Hadley, arguing that the significance of the college is primarily social, maintains that the subjects studied are of less significance than the life that is lived in colleges, and that a period of four years, from 18 to 22, or from 19 to 23, is none too long to give the training that one should have who would secure a liberal education.

Columbia University and most of the universities of this Association allow one or two years of profes-

sional or technical work to count for the bachelor's degree.

We are all familiar with the views that were held by President Harper. He said in 1902, "Ten years from now the high schools all over the country will have added fifth and sixth years and will be doing the college work which now falls to the first two years of the college."

At the meeting of this Association, held in 1903, Professor Julius Sachs, who is at the head of two important secondary schools in New York City, took the opposite view. He said, "Speaking now for the secondary schools and as a member of the secondary profession, the feeling that is most prominent in my mind is that no greater danger besets the secondary teacher than the blind hope that he can at some time or other, or through some peculiar circumstances, supplant the work of the early college years. I believe we are as far removed from that as it is conceivable to be at the present moment."

One who reads Professor Sachs's defense of his position, in the Educational Review for January, 1906, and President Hadley's article, in the Century for April, 1905, may see what the real issue is. I think it may be fairly stated as the aristocratic vs. the democratic conception of all education in advance of the elementary school. Yale and Princeton, and the colleges that follow their lead, doubtless satisfy a real demand when they maintain a four-year college course, intact, for those whose tastes and circumstances enable them to take advantage of the opportunities offered. These institutions need make no concessions to the fitting schools on the one hand or to the professional schools on the other hand. There

are also many private schools, besides those presided over by Dr. Sachs, which find it to their advantage to satisfy the demand that they serve as fitting schools for such colleges. Were the colleges and secondary schools of the North Central States limited to institutions of this type, there would be nothing for this Association to do but to consider college entrance requirements.

But with the changing of the requirements for the bachelor's degree there has come about a change of conditions under which the degree may be obtained. It is no longer essential that all the work should be taken in the same institution. In order that the needs of our territory as a whole may be met it should be possible for one student to take a part of his college course in an advanced high school and the rest in a university; while another may be so situated that the small college with its preparatory department offers the needed opportunity. So varied are the conditions that prevail that varied agencies are needed if the best educational advantages are to be within reach of all our youth who aspire to a college training. The important question is not when or where the bachelor's degree should be given, nor indeed what it shall stand for. Titles and degrees as such have but little significance, and it may be just as well that such is the case. But it is important, to use the words of Dr. Elmer Brown, that "there be no *cul-de-sac* in the educational systems of the republic, but that instead every child, to the remotest district of our land, shall find the humble school of his neighborhood opening up into the higher schools, and so on up into the highest universities."

The Commission on Accredited Schools was or-

ganized "to establish a definite form of affiliation and credit, fixed, comprehensive, and uniform, between the colleges and secondary schools of the North Central States." If this means anything, it means that a system should be put into operation by which the student who has done one, two, or even three years of college work in one institution may know definitely in advance what credit he will receive if he passes to another. This implies definitions of units of college work corresponding to the units of secondary school work as now defined. It would appear that the Commission on Accredited Schools cannot accomplish what it was designed to do without becoming a Commission on Accredited Schools and Colleges.

Three years ago a committee was appointed, of which President Thwing was chairman, to take into consideration the advisability of extending the work of the Commission so as to include accredited colleges, and to determine what should be the requirements for the bachelor's degree. The committee has made two reports, but the only reference to accrediting colleges is the following: "It has been suggested that the committee draw up what might be called a list of accredited colleges coördinate with a list of accredited fitting schools. The committee is loath to make such a classification. The attempt is beset by serious difficulties."

It was not anticipated that the committee would prepare a list of accredited colleges, but it was hoped that the question of carrying the work of the Commission into the college field would receive consideration.

The object of our Association and the Commission on Accredited Schools is "to establish fixed and uni-

form relations between the colleges and the secondary schools of the North Central States," and in the process, and as a means, of establishing such relations it is quite as important that attention be given to the colleges as to the secondary schools. It is clearly apparent that the work of the Commission should not be confined, like that of the College Entrance Examination Board, to the consideration of college entrance requirements.

As a matter of fact this Association presupposes a list of accredited colleges as well as a list of accredited schools. The call for a meeting to form the Association was issued by the presidents of the University of Michigan, the University of Wisconsin, the Northwestern University, the University of Chicago, and a committee of the Michigan Schoolmasters' Club. Invitations were sent to several prominent represntatives of higher and of secondary education in the states of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Nebraska, and Kansas.

One of the questions submitted for consideration at the preliminary meeting for organization was "What shall be the qualification for membership in the Association?" The charter members, as reported by the Committee on Constitution and Nominations, were those who received invitations to the conference and were actually represented at the meeting. The colleges in this list of charter members were Ohio State University, Western Reserve University, Oberlin College, Ohio Wesleyan University, the University of Michigan, Albion College, Indiana University, Wabash College, DePauw University, University of Illinois, Northwestern University, University of Chi-

cago, Lake Forest College, Illinois College, Illinois Wesleyan University, University of Wisconsin, Beloit College, State University of Iowa, Cornell College, University of Missouri, and Washington University.

By Article III of the Constitution membership depends on nomination by the Executive Committee and election by the Association. Until the establishment of the Commission on Accredited Schools the Executive Committee accredited both colleges and schools. From the organization of the Association the Executive Committee has passed on applications of colleges for admission, refusing some and accepting others. In addition to the charter members the following colleges have applied for membership and have been accepted : Denison University, University of Cincinnati, Knox College, Iowa College, Drury College, Missouri Valley College, Westminster College, University of Nebraska, University of Kansas, University of Colorado, Colorado College, University of Oklahoma, University of Minnesota, Park College, Miami University, Ripon College, Milwaukee-Downer College, Lawrence University.

The following institutions have been represented by individual members: Case school of Applied Science, Purdue University, Rose Polytechnic Institute, Earlham College, Armour Institute of Technology, Eureka College.

Membership has lapsed in the case of the following colleges: DePauw University, Illinois College, Illinois Wesleyan University, University of Minnesota, Ripon College.

Our constitution says that no college or university shall be eligible to membership whose requirements

for admission represent less than fifteen units of secondary school work, as defined by the Commission on Accredited Schools, and that no college or university shall be eligible which confers the degree of Doctor of Philosophy or Doctor of Science except after a period of three years of graduate study.

What other qualifications are considered necessary for membership have not been set forth by the Executive Committee, and as the Committee changes from year to year it is not improbable that what have been considered essential qualifications have varied, and that colleges have been admitted to membership that are inferior to others that have been rejected.

It would also appear from President Thwing's report of last year that of the 35 colleges that are now members 11 do not require for admission 15 units of secondary school work and are not therefore eligible to membership. It may also be noted that of the 66 secondary schools that are members of the Association 24 are not on the list of Accredited Schools as published last year.

It would seem from these facts that this Association has done either not enough or too much in the way of accrediting colleges. I am aware of the fact that from the time of the preliminary meeting for organization until the present time there has been a decided difference of opinion on this question. It doubtless is "beset with serious difficulties." If, however, the Association serves the purpose for which it was organized, it must meet and overcome these difficulties.

I therefore propose that the act establishing the Commission on Accredited Schools be changed to read a "Commission on Accredited Schools and Col-

leges," and that in the second article the clause "to define and describe unit courses of study in the various subjects of the high school programme" be changed to read "to define and describe unit courses of study in the various subjects of the high school and the college programmes," and the clause "to prepare a list of high schools within the territory of this Association which are entitled to the accredited relationship" be changed to read "to prepare a list of secondary schools and also a list of colleges and universities within the territory of this Association that are entitled to membership in the Association." The Board of Inspection which now prepares the list of Accredited Schools could also make a list of Accredited Colleges.

I also propose that such changes be made in the Constitution of the Association as will make it possible to include certain institutions that are now ineligible. Three years ago I noted the fact that "the object of the Association, interpreted in the light of the amendments adopted in 1898 and the Report of the Commission on Accredited Schools adopted in 1902, is to establish closer relations between two classes of institutions. These two classes are (1) colleges and universities whose requirements for admission represent not less than four years of secondary school work, and (2) secondary schools which have a four years' curriculum consisting of not less than fifteen unit courses of study, three of which must be in English and two in mathematics. Only such institutions as conform to one or the other of these two types are at present eligible to membership in the Association."

Much attention was given in the early history of

the Association to the curriculum of the secondary school and the conclusion was finally reached that "the secondary school is an institution which gives instruction, amounting to not less than fifteen unit courses of study, in advance of the elementary grade, in English and mathematics, and such other subjects of study, technical and non-technical, as are suited to the aims and attainments of the students." I now venture to propose a corresponding definition of the college as the term may be used in the North Central Association of Colleges and Secondary Schools: "The college is an institution which gives instruction, amounting to not less than twelve unit courses of study, in advance of the fifteen units of the secondary school, in such subjects of study as are suited to the aims and attainments of the students." By changing the Constitution so that it may accord with this definition of a college, the Board of Inspection could classify every institution in the North Central States that is doing satisfactory secondary or college work as a secondary school or as a college, for a definite content in the shape of units of work done, which may be tested and proved in quantity and quality, would furnish a satisfactory basis of classification.

It is no longer possible to draw a line of separation between the secondary school and the college. This may be made apparent by taking under consideration the subjects of study that are taught in both classes of institutions.

In English a year of systematic study in composition and literature is usually required for the bachelor's degree in addition to the college entrance requirements. Most colleges and universities have indicated their willingness to give college credit for

this work if it has been satisfactorily done in the secondary school. In the subject of English, then, four units are required for the bachelor's degree, three of which are usually taken in the secondary school and one in college.

The admission requirements in mathematics are two or three units and enough is required in college to amount to four units, but engineering schools, with the most advanced requirements for admission are coming to insist on what amounts to four units. A high school that meets the requirements of these engineering schools, has at the same time met the usual requirements for the bachelor's degree in mathematics, so that in this subject of the four units required for the bachelor's degree two may be given either in high school or in college.

In the sciences one year in physics is often required for admission, but nearly all the colleges in our territory will accept as many as four or five admission units in science and most of our first class high schools are now equipped to give instruction in the five units that are defined by the Commission. Elementary courses in science are given in all colleges for the benefit of students who entered without such instruction. We may say then that the three or four units in science usually studied by candidates for the bachelor's degree may be pursued in high school or in college.

The situation so far as history is concerned is almost identical with that in the sciences.

In foreign languages seventeen admission units have been defined by the Commission, four each in Latin, French and German, three in Greek, and two in Spanish. Six or seven of these units were until

recently required for admission to college, but now most of the colleges and universities in our Association require only two units in foreign language for admission, so that we may say that of the seven or eight units in foreign language usually studied by candidates for the bachelor's degree five or six may be taken in the high school or in college.

It appears then from these considerations that half the work now accepted for admission to college is duplicated in college and half the work required in college for the bachelor's degree is duplicated in the secondary school, or, what amounts to the same thing, half the combined school and college requirements for the bachelor's degree may be pursued, and, as a matter of fact, are now pursued either in school or in college. The usual college course is made up of about equal parts of studies appropriate to the secondary schools and of more advanced or professional subjects that should be offered only in the college or the university.

In considering the question before us, are we not agreed that, as an Association, our main business is to take such action as will be to the advantage of the young men and women who are attending these schools and colleges? That this action will in the long run be to the advantage of our country and of every school and college goes without saying. Failure to coöperate in fixing and in maintaining standards has led too often to an unseemly scramble for students, the most serious consequence of which has been that what is best for the students has been sacrificed to what seemed to be of advantage to the college. In the territory of this Association there are 263 high schools in cities having a population of over

8,000, and 193 colleges and universities, all except 12 of which have preparatory departments. Most of these colleges are in the smaller towns. Here is the basis of a system that should enable the aspiring youth of our land to "find the humble school of his neighborhood opening up into the higher schools, and so on up into the highest universities." And if it is true that the high schools in our larger towns are prepared to do at least half the college work as well as it is done in college or better, why should it be necessary for those who wish to carry their education beyond the 15 units required for admission to college to incur the expense of leaving home, which is often prohibitive, in order to make the most of themselves?

In recent years we have heard something of the peril of the small college. No class of our educational institutions has served a more useful purpose or now has a more important work to do than the small college. It is in peril if it makes the mistake of attempting to do what it is unable to do well and fails to recognize its opportunity and adjust itself to the demands of the present. The small colleges, with their preparatory departments, cannot reasonably expect to draw students from the better manned and equipped high schools of the larger towns, but the colleges may do for the smaller towns and their surrounding territory what the high schools of the cities do for their communities. The small college may continue to give the bachelor's degree to those students who choose such advanced work as the resources of the colleges make it possible for them to offer, but they should not make the mistake of trying to compete in the number of their departments and

the range of their work with the large universities. In most of our small colleges the curriculum should be limited to those subjects of study which in the past gave to the degree of A. B. its distinctive character. That there is still a demand for such instruction no one can deny.

In conclusion I maintain that our Commission should accredit colleges and universities as well as secondary schools for the following reasons:

1. Because the Commission cannot define units of college work so that secondary school students may receive college credit, without inspecting the colleges. If both schools and colleges are inspected, let both be accredited, the school for the benefit of the college, the college for the benefit of the school; but, what is most important, let school and college be inspected and accredited for the benefit of the students who pass from one to the other.

2. Because in the territory of this Association the better equipped high schools should be encouraged to do at least two years of college work, that their students may be brought to a stage of advancement that will fit them to enter institutions where they may specialize in advanced, professional, or technical work. There is certainly quite as much reason for inspecting the college work of such a high school as there is for inspecting the more elementary secondary school work; but it would not be reasonable to inspect and accredit the work of the last two years of a secondary school, that does two years of college work, and not inspect and accredit the first two years of a college doing the same work.

3. Colleges and universities should be accredited by the Commission because the time has come when

we ought to do systematically and consistently what we have done in a haphazard sort of way since the organization of the Association. The North Central Association of Colleges and Secondary Schools has been assumed to be from the first an Association of Accredited Schools and Colleges.

4. One half the work now done in secondary schools and colleges covers ground common to both classes of institutions. By defining courses of instruction and inspecting and accrediting institutions much waste and confusion may be prevented and the interests of students conserved. When all elementary courses in English, mathematics, science, history, and foreign languages are thus standardized, the student may pass from one institution to another at that stage in his advancement which is most to his advantage. We of this Association believe in the certificate system of admission to college. Is there any reason why the system should not be extended beyond the 15 units now commonly required? Why should the Commission accredit work done in high schools and pay no attention to the same work when done in college? The 193 colleges of our territory are not so superior to the 263 high schools in cities of over 8,000 inhabitants that they need no attention. But, confining ourselves to the members of this Association, it might be well for the colleges and universities, not only those with preparatory departments, but all, even the largest and strongest, to have the courses they offer in the same subjects and of the same grade that are taught in the secondary schools defined, inspected, and accredited.

The discussion was continued by Superintendent E. L. Coffeen, Marshalltown, Iowa, as follows:

# THE INSPECTION AND ACCREDITING OF COLLEGES AND UNIVERSITIES.

SUPERINTENDENT E. L. COFFEEN, MARSHALLTOWN, IOWA.

As one approaches the discussion of this question it clearly presents itself in two forms. First, is it desirable to have a list of accredited universities and colleges as well as secondary schools? Secondly, what standard shall be the determining basis for the accrediting?

It certainly is very desirable that there should be an accrediting system of colleges and universities. If there is a list of such schools that require certain standards of work and that have passed the inspection of the board of such an association, it will be of great service to the people who are to send their boys and girls to colleges. The expert judgment of such a board will be very valuable. As one who has had to deal with secondary education during most of his experience as an educator, the speaker has often viewed with mingled feelings of contempt and of pity the estimates which people, who are sending their sons and daughters to college, place upon different educational institutions. In fact at times they are like a reed bending in whatever direction the strongest wind blows. They are people many times who have never been to college, who have a very vague idea as to what a college education means, and who do not realize the ideals and purposes of such an institution. They feel many times their helplessness in the matter and would like some guide or assistance by which to select the schools to which it would be best to entrust their sons and daughters. If a thoroughly organized society of accredited schools and

universities could gain the confidence of the people and would be organized on a fair and broad-minded basis, it would certainly be of great assistance to the college and university clientage.

Educators of the secondary schools are often at a loss to know what advice to give to parents or to young men and young women who come to them. They do not have the opportunity of visiting the various institutions, and they do not have the opportunity and time to look them up as to their standing. Such an association would certainly at such times be of great assistance to a superintendent or high school principal. It is believed that the judgment of an expert board whose expressed results would be consistent, fair and unprejudiced and uniform, would be of the same benefit that expert testimony is in other lines.

Such an association would certainly be an inspiration to the various colleges that would constitute the membership of such an institution. As it appears now there seems to be little responsibility to any one on the part of the instructors in any institution. A recent questionaire sent out by the speaker reveals the fact that there is very little questioning of the character of the work done within the class rooms of many institutions. In fact, one college president expressed himself as feeling that he would be "snooping around" if he endeavored to visit any of the lectures in his institution. Another university president stated that it was an impossibility to supervise closely the class room work of any university. Several claimed that the heads of departments supervised the work. But when it came to the question of how close this supervision was exercised there was

shown to be a laxity in nearly all institutions. There is a feeling abroad in the land that professors and instructors in universities care more for their specialties than they do for their students. Just how far this is true I am free to say my questionaire failed to disclose. Yet there is a lurking feeling among many educators that courses of study are too frequently made up without taking into consideration the students that are to pursue them. A thorough system of accrediting universities and colleges, would, if a close system of inspection were exercised by a board consisting of representatives from colleges and secondary schools, do something to remedy these evils if they exist; or, if the evils are found not to exist, it would do something to put the college professor and the college instructor in his right light before his constituents.

There is no discounting the fact that the accrediting system in the west, through its methods of inspection, has been a great factor toward improving the high schools. In a like manner a thorough inspection of colleges that wish to belong to such an association would raise the standards of work in all lines. It would either eliminate from the college class certain "quack" colleges or else cause them to stir themselves to such a degree as to be able to enter the lists of fully recognized institutions. President Jordan says in regard to the system of accrediting colleges: "I should certainly welcome it. I was the first to suggest it to the teachers of California. A competent examination and report would do some of us much good." Another university president recently stated that: "Departments and even whole faculties easily become ossified. Unless prevented

they are apt to recruit themselves by inbreeding. Methods become antiquated, teaching stale, and the atmosphere soporific."

A good thorough inspection that would prevent these evils would certainly be a benefit to the one hundred and ninety-three colleges in the territory of the Central Association of Colleges and Secondary Schools. All classes of men whether they are in commercial or educational pursuits are revived from states of lethargy when they are compelled to reach a certain standard of efficiency or when their work is compared with that of others in a similar occupation. Human nature is the same in both cases.

The question upon what standards such an association would be organized is also a matter of very vital importance. First there would be a standard of scholarship on the part of the professors and instructors that are to do the teaching work in these institutions. I believe that that matter is sufficiently emphasized in all institutions at present. All of the leading universities and colleges are looking well to the degrees which the members of their faculties hold. They want them to be thorough, exact and alive as students.

But attention should be given to the moral character and the teaching ability of those who are to be put in charge of the students. We can reasonably believe that much attention is paid to the moral character of those who are placed in charge of the class rooms. And we believe that the ideals of the average college professor and instructor are very high. They are men who are looked up to as perhaps no other class of men. However, the teaching side is not always considered. Too often there is a lack

of knowledge of educational principles and even a disdain for them on their part for such knowledge. They frequently believe that any one having a special training in any subject can teach that subject. They lack the ability of getting in personal touch with their students. They simply scatter their seed broadcast and allow it to light in all sorts of places, not considering whether the soil is adapted to it or not. They too *infrequently* look at matters from the student's point of view. I believe that right here is the place where the greatest indictment can be laid at the doors of universities and colleges. There is no class of men with higher ideals, and more thoroughly consecrated to their work than the college professors of America. Their greatest lack consists in the fact that they are not sufficiently acquainted with the principles of education. It is a fact to be deplored that many college men deprecate the need of professional training and teaching. They are not familiar with the best methods of either college or secondary work or with the nature of the individuals to be taught. The college entrance requirements, which have been largely dictated by the college specialists are very good illustrations of this. The fact is that the high schools have become too much *collegized* or too much *Ph. D.-ized.* As was recently stated by a members of the "New York Schoolmasters' Association": "These college entrance requirements have been shaped by specialists whose interest has been in the subject rather than the student." Many of the college men do not understand high school or freshman students. John F. Woodhull in the March Educational Review gives a typical situation when he says: "The history of physics teaching in secondary

schools for the last 25 years naturally divides itself into two periods. During the first 13 years of this period physics was taught without help or hindrance from the colleges, and it progressed against fearful odds until 24 per cent. of all secondary-school pupils were studying the subject; — during the last 12 years the colleges have dominated the physics teaching in the secondary schools through their syllabi interpreted and enforced by their examinations, and it has declined until the number of pupils in physics has been reduced to 10 per cent. Twelve years ago 24 per cent. of the students took it voluntarily; now a considerable portion of the 10 per cent. take it only by compulsion. * * * I have been collecting testimony for the past 18 years from persons all over the country who studied physics then, and I find that the general feeling is that it was both interesting and profitable. Such testimony has been steadily changing into adverse criticism of the physics teaching of the last 12 years.

"In recent years physics teaching in the colleges also has been growing more unsatisfactory to general students. It is becoming more and more deficient in both the humanitarian and the practical elements. It does little for general culture and less for common sense. It is good preparation for neither investigators nor engineers and least of all for the ordinary citizen. In recent times college men have set out to *know only one thing,* and have omitted to conquer a sufficient field of related knowledge to understand any one thing well enough to teach it. We have witnessed the attempt to force the worst features of college instruction upon the secondary schools and we have in many cases seen young men come directly

from such a régime of college physics to teach in our secondary schools. They confine themselves to that disjointed skeleton of dry bones, the forty quantitative experiments. They use them as simply isolated, detached mathematical problems. They make no logical connections. They know little of an articulate whole. They know nothing of the correlations of physics and chemistry with botany, zoölogy, physiology, geology, geography, and the like."

If more attention were paid to the pedagogical abilities of the college instructor, it would react upon their students who take up teaching and we would have more pedagogically prepared teachers in our high schools. The secondary schools would then have a better quality of teaching. In view of the importance of the teaching side of a college instructor's preparation, this feature of college work should be considered by any board of inspection that is instituted.

Besides the standards to be held up on the part of the instructor there is the standard of admission and graduation required of the student. Something like a uniform standard is necessary. Who is to set this standard? What principles are to govern it? After all is said and done I believe that it can be truthfully stated that the most potent factor for bringing secondary education to the doors of the American youth has been the college. Through their graduates who have gone out as instructors, and through the desire of the people to maintain schools that can be accredited by these institutions there has come a spirit abroad in cities, large and small, for the establishment of strong high schools at public expense. I would challenge any one to produce a

stronger factor in this matter. The colleges have been enabled to raise their standard and to do it justly. The high schools have been endeavoring strenuously to come up to the standard set by the colleges. The time has come, however, when there should be a limit as to the raising of requirements for entrance. Heretofore for various reasons the colleges have been the ones to set the standard. The secondary schools have taken very little part in the matter. But the time is now at hand when the secondary school interests together with the college should have some voice in the question as to what the requirements for general college entrance should be, and as to the methods of teaching to be used and the matter to be studied. They are the ones who are to work day in and day out with the students and who best know their capacity and capabilities. All are willing to grant deference to college people when they express judgments that come within their field of labor. At the present time are there not men engaged in secondary work whose testimony is as important in their line and should be considered and weighed with the same value as the college man's testimony? It comes back again to that old question as to the capacity of the student and to the taking of the student into consideration when we come into framing our courses of study.

The requirements for admission on the part of the college in this association should not be placed so high that it will preclude the *average* high school from being accredited, or from giving due attention to the students that do not go to college. There should be a swinging of the pendulum in the other direction. The college man through his exacting re-

quirements is today driving many of our students from the high school. He is driving many of our students from physics and chemistry classes. He is doing the same with reference to botany, biology, mathematics and other branches. He wants the high school to do some of the work which he should be doing. Of course if the time should come within the future when the secondary school could get the financial appropriations and the public sentiment back of them to support them in carrying on some of this college work it would be all well and good, but as public sentiment is in the central west at present and as the questions of taxation come up at various times, the colleges should yield to sociological considerations. When this standard is set the conditions of the average communities in which our high schools are situated should be taken into consideration. We realize that the colleges have high ideals and they constantly work to carry them out, but they should at the same time keep in touch with their constituents from whom they get their students.

The question of accepting work done in the high schools as part of the work leading to the bachelor's degree is beset with difficulties. Will the college man be willing to accept the high school methods and the high school matter to be studied in the different subjects? Will he wish to take from secondary education its distinctive character? Will he insist on college methods for those branches that are to be accepted for college work? If the college man will recognize real secondary methods in the high school and will recognize them in the freshman and sophomore years, such accrediting would receive the hearty sanction of most high school men; but if it means

the further introduction of present college methods into the high schools, there will be serious objection.

Furthermore another question that would arise is that of the capabilities of the high school teaching force. We have constantly changing faculties of instruction and as a consequence a considerable of poor teaching. We have to supervise the work in such a way that we can adjust ourselves to the elementary grades. We find that many of the college graduates that come to us are not well prepared for teaching their subjects. It takes nearly a year of experience and training before many of them become anything like proficient teachers. With our high school faculties made up as they are at present and with the methods that are necessary would the colleges be willing to accept our work for the bachelor's degree? I leave it to the college men to decide.

Perhaps the greatest difficulty that secondary people have to deal with now is the question of articulation with the engineering departments of the universities. The engineering departments of the different schools are endeavoring to do too much in the four years of time. They wish to put their graduates on the same plane as the graduates of the medical, of the law, and theological schools. Their ambition is certainly laudable. At present it would be better if the engineering schools would raise their requirements to the standard they desire and cease accrediting the high schools and cease attempting to put more work upon them? They would then be free to raise their requirements and ask their students to take the further preparation made after the student leaves the high school. As the situation is at present the relations of the average secondary school with

the school of technology is embarrassing not only to the high school, but also to the school of technology.

My greatest and final plea in the accrediting system is that we take into consideration in the arrangement of the courses of study and the methods of teaching, first, the secondary student; and second, the community in which the average secondary school is situated; third, the personnel of the teaching forces of colleges and secondary schools as to (a) scholarship, (b) moral character, (c) teaching ability. The least of these should not be the teaching ability.

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The report of the Commission on Accredited Schools was presented by the Chairman of the Commission, Acting President Harry Pratt Judson, of the University of Chicago, as follows:

## REPORT OF THE COMMISSION ON ACCREDITED SCHOOLS.

*Mr. President:* The work of the Commission during the past year has in the main related to two subjects. The first has been embodied in the action of the Board of Inspectors. The report of the Board will be presented in full by its chairman, Mr. Whitney. Meanwhile, you will be interested to know that at the Board meeting held yesterday, at which final action on accrediting schools was taken, there was for the first time in the history of the Association a full representation of every state within our territory. In one or two states it has not been possible to furnish a complete list of schools, but this will soon be remedied. The work of the Board has indicated a steadily growing interest in the subject, and a widen-

ing influence of the Commission and of the Association. I ought to say in closing this branch of the subject that the Commission are under obligations to the gentlemen comprising the Board for their very painstaking and thorough work.

The second matter relates to the subject of the definitions. A year since it was decided that in order to keep the syllabus of subjects in proper form and in order to see that those which at that time were unsatisfactory shall be in suitable shape, the Commission was authorized to appoint a committee on each subject. These committees consist of two members from each of the states, one representing the college and the other the secondary school. Much time and care have been taken to see that the selections are suitable and only at this meeting has it been possible to complete the list. It is hardly to be expected that any one of these committees will be able to have a full meeting of its members. However, business will be carried on by correspondence and there is little doubt that the work can be satisfactorily performed. In some subjects, notably that of Physics, this is a very vital matter. The teachers of Physics are not at all content with the existing form of statement and are busily engaged at present in attempting its revision. The committee of the teachers of Physics and Mathematics appointed to consider this subject are all included in the committee appointed by the Commission. It may be expected, therefore, in that subject, that the report of the committee next year will contain some decidedly new and fresh matter. The Secretary of the Commission will read the list of committees.

The Secretary of the Commission, Director G. N. Carman, Lewis Institute, Chicago, then read the list of Committees and the minutes of the Commission as follows:

## THE MINUTES OF THE MEETINGS OF THE COMMISSION ON ACCREDITED SCHOOLS.

The Commission met at 2 P. M. Thursday, March 22, 1906, at the Auditorium Hotel in Chicago with Acting President H. P. Judson, of the University of Chicago, in the chair. The members present were Professor Joseph V. Denney, and Inspector W. W. Boyd, of the Ohio State University; Secretary G. M. Jones, of Oberlin College; Principal Edward L. Harris, of the Cleveland Central High School; Professor Frederick C. Hicks, of the University of Cincinnati; High School Visitor E. O. Holland of the University of Indiana; Inspector A. S. Whitney, of the University of Michigan; Principal F. L. Bliss, of the Detroit University School; High School Visitor H. A. Hollister, of the University of Illinois; Principal J. E. Armstrong, of the Chicago Englewood High School; Director G. N. Carman, of the Lewis Institute; Professor Walter Dill Scott, of Northwestern University; Professor H. E. Griffeth, of Knox College; County Superintendent A. F. Nightingale, of Chicago; Inspector A. W. Tressler, of the University of Wisconsin; State Inspector H. L. Terry, of Wisconsin; Inspector George B. Aiton, of Minnesota; President George E. MacLean and Inspector Forest C. Ensign, of the University of Iowa; President Homer H. Seerley, of the State Normal School, Cedar Falls; Inspector J. D. Elliff, of the University of Missouri; Professor Marshall S.

Snow, of Washington University; President John R. Kirk, of the State Normal School, Kirksville; Inspector William H. Johnson, of the University of Kansas; Inspector T. M. Hodgman, of the University of Nebraska; President James H. Baker, of the University of Colorado; State Superintendent M. M. Ramer, of South Dakota.

The following standing committees on definitions of units were submitted by the secretary, from the names presented by the Inspectors, in accordance with the action of the Commission one year ago.

ENGLISH.

F. N. Scott (Chairman), Professor of Rhetoric, University of Michigan.
University of Michigan, A. B. 1884, A. M. 1888, Ph. D. 1889.

J. V. Denney, Professor of English and Dean of the College of Arts, Philosophy, and Science, Ohio State University.
University of Michigan, A. B. 1885.

J. W. McLane, Principal, Lincoln High School, Cleveland, Ohio.
Adelbert College, A. B. 1883, A. M. 1895.

A. J. Volland, Principal, Central High School, Grand Rapids, Mich.
University of Michigan, A. B. 1876.

T. A. Clark, Professor of Rhetoric and Dean of Undergraduates, University of Illinois.
University of Illinois, B. L. 1890.

R. N. Whiteford, Head of the Department of English, High School, Peoria, Ill.
Wabash College, B. A. 1890, M. A. 1892, Ph. D. 1893.

W. F. Webster, Principal East High School, Minneapolis, Minn.
University of Minnesota, A. B. 1886.

H. M. Belden, Professor of English, University of Missouri.
Trinity (Hartford), A. B. 1888; Johns Hopkins University, Ph. D. 1895.

E. M. Hopkins, Professor of Rhetoric and English Language, University of Kansas.
Princeton University, A. B. 1888, Ph. D. 1894.

Nettie E. Manley, Teacher of English, High School, Emporia, Kansas.
University of Kansas, A. B. 1901.

W. W. Stoner, Superintendent of City Schools, York, Nebraska.
Otterbein University (Ohio), A. B. 1893.

F. G. Hubbard, Professor of the English Language, University of Wisconsin.
Williams, A. B. 1880; Johns Hopkins, Ph. D. 1887.

James Lawrence Lardner, Head of Department of English and Oratory, Dakota Wesleyan University, Mitchell, S. D.
Wabash College, Crawfordsville, Ind., B. S. 1896; Graduate School of Oratory, Northwestern University, 1900.

W. L. Cochrane, Superintendent of City Schools, Aberdeen, South Dakota.
Kirksville State Normal School (Missouri), B. P. 1900.

C. F. Ansley, Professor of English, State University of Iowa.
University of Nebraska, A. B. 1890.

B. F. Kizer, Director of English, Manual Training High School, Kansas City, Mo.
Wittenberg College, Springfield, Ohio, A. B., A. M.

V. L. Parrington, Professor of English Literature, University of Oklahoma.
Harvard University, A. B. 1893.

## MATHEMATICS.

C. E. Comstock (Chairman), Professor of Mathematics, Bradley Polytechnic Institute, Peoria, Ill.
Knox College, A. B. 1888, A. M. 1891.

H. Hancock, Professor of Mathematics, University of Cincinnati,
Berlin University, Ph. D.; Paris, D. Sc.

J. L. Markley, Junior Professor of Mathematics, University of Michigan.
Harvard College, A. B. 1885; Harvard University, A. M. 1887; Ph. D. 1889.

A. Darnell, Head of the Department of Mathematics, Central High School, Detroit, Mich.
University of Michigan, Ph. B. 1898.

H. E. Slaught, Assistant Professor of Mathematics, University of Chicago.
Colgate University, A. B. 1883, A. M. 1886; University of Chicago, Ph. D. 1898.

J. F. Downey, Professor of Mathematics and Dean of the College of Science, Literature and Arts, University of Minnesota.
Hillsdale College, A. M. 1877; College of Pennsylvania, C. E. 1878.

W. A. Bartlett, Principal High School, Winona, Minn.
Iowa State Normal (Cedar Falls), B. D. 1883; Iowa College, B. S. 1887, A. M. 1890.

W. D. Wells, Principal, High School, Davenport, Iowa.
Iowa State College, B. Sc. 1883.

E. R. Hedrick, Professor of Mathematics, University of Missouri.
University of Michigan, A. B. 1896; Harvard University, A. M. 1898; Goettingen, Ph. D. 1901.

I. I. Cammack, Principal Central High School, Kansas City, Mo.
Earlham College, B. S. 1884.

E. B. Skinner, Assistant Professor of Mathematics, University of Wisconsin.
Ohio University, A. B. 1888; University of Chicago, Ph. D. 1900.

A. L. Candy, Associate Professor of Mathematics, University of Nebraska.
University of Kansas, A. B. 1892, A. M. 1893; University of Nebraska, Ph. D. 1898.

A. R. Congdon, Teacher of Mathematics, Omaha High School.
University of Nebraska, B. Sc. 1899.

H. B. Newson, Professor of Mathematics, University of Kansas.
Ohio Wesleyan University, B. S. 1883, A. M. 1891, Ph. D. 1891.

A. M. Bogle, Teacher of Mathematics, Kansas City (Kansas), High School.
Muskingum College, A. B. 1880, A. M. 1883.

G. W. Nash, President Northern Normal and Industrial School, Aberdeen, South Dakota.
Yankton College, B. S., M. S.

J. D. Harlor, Head of Department of Mathematics, East High School, Columbus, Ohio.
Ohio State University, B. A. 1895.

S. W. Reaves, Professor of Mathematics, University of Oklahoma.
University of North Carolina, B. S. 1899; Cornell University, A. B. 1900.

## HISTORY.

J. A. James (Chairman), Professor of History, Northwestern University.
University of Wisconsin, B. L. 1888; Johns Hopkins University, Ph. D. 1893.

H. E. Bourne, Professor of History, Western Reserve University.
Yale University, B. A. 1883, B. D. 1887.

H. V. Hotchkiss, Superintendent of Public Schools, Akron, Ohio.
Allegheny College, A. B. 1884, A. M. 1887, Ph. D. 1896.

W. Cook, Principal Saginaw High School, Michigan.
University of Michigan, A. M. 1886, Ph. D. 1887.

H. V. Church, Principal J. Sterling Morton High School, Clyde, Illinois.
University of Chicago, Ph. B. 1894.

D. C. Munro, Professor of European History, University of Wisconsin.
Brown University, A. M. 1890.

W. M. West, Professor of History, University of Minnesota.
University of Minnesota, B. A. 1879, M. A. 1881.

W. T. Couper, Teacher of History and Civics, East High School, Minneapolis, Minn.
Hamilton College, B. A. 1892, M. A. 1893, University of Minnesota, LL. B. 1905.

H. H. Freer, Professor of Economics and Sociology, Cornell College, Mt. Vernon, Iowa.
Cornell College, A. B. 1880, A. M., 1883.

W. R. Smith, Instructor in American History, Washington University, St. Louis, Mo.
Missouri Valley College, Ph. B. 1899; University of Chicago, Ph. M. 1901.

N. W. Lamkin, Teacher of History, High School, Clinton, Mo.

H. W. Caldwell, Professor of American History and Politics, University of Nebraska.
University of Nebraska, Ph. B. 1880, A. M. 1894.

Manda J. Sundeau, Teacher of History, High School, Lincoln, Nebraska.
Nebraska University, B. A. 1898.

W. C. Abbott, Professor of European History, University of Kansas.
Wabash College, A. B. 1892, A. M. 1893; Oxford University, B. Litt., 1897.

C. H. Rhodes, Principal High School, Winfield, Kansas.
University of Kansas, A. M. 1905.

W. W. Girton, Teacher of Civics, State Normal School, Madison, South Dakota.

G. W. Kephard, Superintendent of Schools, Beresford, South Dakota.
South Dakota Agricultural College, B. Sc. 1902.

J. S. Buchanan, Professor of History, University of Oklahoma.
Cumberland University, B. S.

## LATIN AND GREEK.

E. W. Coy (Chairman), Principal of Hughes High School, Cincinnati, Ohio.
Brown University, A. M. 1858; Princeton University, Ph. D. 1886.

J. H. Drake, Junior Professor of Latin and Roman Languages, University of Michigan.
University of Michigan, A. B. 1885; Ph. D. 1900; LL. B. 1902.

David Mackenzie, Principal of Central High School, Detroit, Michigan.
University of Michigan, A. M. 1881.

W. R. Bridgman, Professor of Greek, Lake Forest College, Lake Forest, Ill.
Yale University, B. A. 1881; M. A. 1891; Main University, M. A. 1891.

J. S. Brown, Superintendent of Township High School, Joliet, Ill.
Denison University, A. B. 1889; Blandaille College, A. M. 1891.

M. A. Slaughter, Professor of Latin, University of Wisconsin.
De Pauw University, A. B. 1883; Johns Hopkins University, Ph. D. 1891.

Nora Frye, Teacher of Latin, High School, Stillwater, Minn.
University of Minnesota, B. A. 1901.

J. H. T. Main, President of Iowa College, Grinnell, Iowa.
Johns Hopkins University, Ph. D. 1892.

L. M. McAfee, President of Park College, Parkville, Mo.
Park College, A. B. 1880, A. M. 1887; Knox College, LL. D. 1903.

W. C. Gunnerson, Teacher of Latin and Greek, Yeatman High School, St. Louis, Mo.
Indiana University, A. B. 1898, A. M. 1899; University of Chicago, Ph. D. 1904.

G. E. Barber, Professor of Roman History and Literature, University of Nebraska.
Hiram College, A. B. 1871, A. M. 1874.

Grace I. Bridge, Head of the Department of Latin, High School, Lincoln, Nebraska.
University of Nebraska, A. B. 1895.

W. J. Greer, Professor of Latin, Washburn College, Topeka, Kansas.
Miami University, A. B. 1889, A. M. 1893.

R. R. Price, Superintendent of City Schools, Hutchinson, Kansas.
University of Kansas, A. B. 1897; Harvard University, A. B. 1900, A. M. 1901.

A. Strachan, Superintendent of Schools and Principal of High School, Deadwood, South Dakota.
University of Rochester, A. B. 1880, A. M. 1882.

Edward Rissman, Principal of the South Division High School, Milwaukee, Wisconsin.
University of Wisconsin, A. M.

## GERMAN.

Laurence Fossler (Chairman), Professor of Germanic Languages and Literatures, University of Nebraska.
University of Nebraska, A. M. 1889.

W. W. Davies, Professor of German, Ohio Wesleyan University.
Ohio Wesleyan University, A. B. 1872; Drew Theological Seminary, B. D. 1874; University of Halle, M. A., Ph. D. 1878.

A. Keifer, Teacher of German, High School, Piqua, Ohio.

M. Winkler, Professor of German Language and Literature, University of Michigan.
Harvard University, A. B. 1889; University of Michigan, Ph. D. 1892.

P. Huber, Superintendent of School, Saginaw, W. S., Michigan.

P. O. Kern, Assistant Professor of Germanic Philology, University of Chicago.
University of Chicago, Ph. D. 1897.

Jessie L. Jones, Assistant Professor of German, Lewis Institute, Chicago.
Doane College, A. B. 1884; University of Chicago, Ph. D. 1897.

A. R. Hohlfeld, Professor of German, University of Wisconsin.
Leipzig, Ph. D., 1888.

Elizabeth A. Waters, Principal High School, Fond du Lac, Wisconsin.
University of Wisconsin, B. S.

Elida C. Kirchner, Teacher of German, Central High School, St. Louis, Mo.
Washington University, A. B. 1899; University of Missouri, M. A. 1902.

Emilie S. Hamm, Teacher of German, High School, Beatrice, Nebraska.

W. H. Carruth, Professor of German Language and Literature, University of Kansas.
University of Kansas, A. B. 1880, A. M. 1889; Harvard University, Ph. D. 1893.

Harriet Kemp, Teacher of German, High School, Junction City, Kansas.
Baker University, A. B. 1901.

Elizabeth Reid, Instructor in German, Huron College, South Dakota.
Wooster University, Ph. B.

Hermine R. König, Instructor in German, North Side High School, Minneapolis, Minn.

J. B. Knoepfler, Professor of German, Iowa State Normal, Cedar Falls.

## FRENCH AND SPANISH.

B. L. Bowen (Chairman), Professor of Romance Languages, Ohio State University.
University of Rochester, A. B. 1881; Johns Hopkins University, Ph. D. 1888.

A. Nonnez, Teacher of French, Walnut Hills High School, Cincinnati, Ohio.
Lycée of Bordeaux, Bachelier es lettres.

J. R. Effinger, Assistant Professor of French, University of Michigan.
University of Michigan, Ph. D. 1898.

T. E. Oliver, Professor of Romance Languages, University of Illinois.
Harvard University, A. B. 1893; Heidelberg, A. M., Ph. D. 1899.

F. L. Smart, Principal of High School, Dubuque, Iowa.
Harvard University, A. B. 1896.

C. W. Benton, Professor of French Language and Literature, University of Minnesota.
Yale University, B. A., M. A. 1874; Western University of Pennsylvania, Litt. D. 1897.

R. Weeks, Professor of Romance Languages, University of Wisconsin.
Harvard University, A. B. 1890; A. M. 1891, Ph. D. 1897.

Eugeine Galloo, Professor of Romance Languages and Literature, University of Kansas.
University of Michigan, B. L. 1892; University of Kansas, A. M. 1895.

Marie Dehnst, Professor of German and French, Kingfisher College, Kingfisher, Oklahoma.

## PHYSICS.

C. R. Mann (Chairman), Assistant Professor of Physics, University of Chicago.
Columbia University, A. B. 1890, A. M. 1891; University of Berlin, Ph. D. 1895.

A. D. Cole, Professor of Physics, Ohio State University.
Brown University, A. B. 1884, A. M. 1887.

Seth Hayes, Principal of High School, Lancaster, Ohio.
Ohio State University, B. Sc. 1892.

C. W. Greene, Professor of Physics, Albion College, Albion, Michigan.
University of Michigan, A. M. 1905; Michigan State Normal College, B. Pd. 1905.

C. F. Adams, Head of Department of Science, Central High School, Detroit, Mich.
Amherst College, A. B. 1877, A. M. 1884.

C. H. Smith, Teacher of Physics, Hyde Park High School, Chicago.
Cornell University, M. E. 1885.

C. W. Treat, Professor of Physics, Lawrence University, Appleton, Wisconsin.
De Pauw University, Ph. B., 1890, A. M. 1893.

H. L. Terry, State Inspector of High Schools, Madison, Wisconsin.

F. S. Jones, Professor of Physics and Dean of the College of Engineering, University of Minnesota.
Yale University, A. B. 1884, A. M. 1890.

E. F. Smith, Teacher of Physics, Humboldt High School, St. Paul, Minnesota.
University of Minnesota, B. L. 1894.

K. E. Guthe, Professor of Physics, State University of Iowa.
University of Marburg, Ph. D. 1892.

S. L. Thomas, Principal, High School, Council Bluffs, Iowa.

O. M. Stewart, Professor of Physics, University of Missouri.
De Pauw University, Ph. B. 1892; Cornell University, Ph. D. 1897.

F. H. Ayres, Head of Department of Science in Central High School, Kansas City, Mo.

J. E. Almy, Assistant Professor of Physics, University of Nebraska.
University of Nebraska, B. Sc. 1896, A. M. 1897; University of Berlin, Ph. D. 1900.

H. M. Garrett, Teacher of Science in High School, Beatrice, Nebraska.
University of Nebraska, A. B. 1902.

H. I. Woods, Professor of Physics and Astronomy, Washburn College, Topeka, Kansas.
Lafayette College, A. B. 1895, A. M. 1898.

A. J. Stout, Teacher of Science in High School, Topeka, Kansas.

L. E. Akeley, Professor of Physics, University of South Dakota.
Rochester University, B. A. 1886, M. A. 1888.

W. A. Thompson, Superintendent of Public Schools, Webster, South Dakota.
Indiana University, A. B. 1904.

## PHYSICAL GEOGRAPHY.

C. E. Peet (Chairman), Assistant Professor of Geology and Geography, Lewis Institute, Chicago.
University of Wisconsin, B. S. 1892.

G. D. Hubbard, Assistant Professor of Geology, Ohio State University.
University of Illinois, B. S. 1896, M. S. 1898; Harvard University, A. M. 1901; Cornell University, Ph. D. 1905.

A. F. Foerste, Teacher of Science, Steele High School, Dayton, Ohio.
Denison University, A. B. 1887; Harvard University, A. M., Ph. D. 1890.

C. A. Jewell, Jr., Teacher of Science, Central High School, Grand Rapids, Mich.
Michigan Agricultural College, B. S.

W. W. Atwood, Instructor in Physiography and Geology, Unisity of Chicago.
University of Chicago, B. S. 1897, Ph. D. 1903.

G. L. Collie, Professor of Geology and Dean, Beloit College, Beloit, Wis.
Beloit College, B. S.; Harvard University, Ph. D.

C. E. Long, Principal, High School, Marinette, Wis.
University of Wisconsin, B. S. 1902.

C. W. Hall, Professor of Geology and Mineralogy, University of Minnesota.
University of Minnesota, B. A. 1871, M. A. 1873.

W. F. Kunze, Superintendent of Schools, Red Wing, Minn.
University of Minnesota, B. S. 1897.

W. H. Norton, Professor of Geology, Cornell College, Mount Vernon, Iowa.
Cornell College, A. B. 1875, A. M. 1878.

H. H. Savage, Superintendent of Schools, East Waterloo, Iowa.
University of Iowa, Ph. B.

C. F. Marbut, Professor of Geology, University of Missouri.
University of Missouri, B. S. 1889; Harvard University, A. M. 1904.

P. Graves, Teacher of Physical Geography and Geology, Central High School, Kansas City, Mo.

G. F. Kay, Assistant Professor of Geology and Mineralogy, University of Kansas.
University of Toronto, A. B. 1900, A. M. 1902.

W. L. Enfield, Teacher of Science, High School, Wichita, Kansas.

E. C. Perisho, Professor of Geology of University of South Dakota, and State Geologist.

G. E. Condra, Associate Professor of Geography and Economic Geology, University of Nebraska.
University of Nebraska, B. S. 1896; A. M. 1898; Ph. D. 1901.
Earlham College, B. S., M. A. 1890; University of Chicago, M. S. 1895.

F. H. Hoff, Superintendent of Schools, Mitchell, South Dakota.
Ohio Northern University, A. B. 1891.

## CHEMISTRY.

H. E. Griffith (Chairman), Professor of Chemistry, Knox College, Galesburg, Ill.
Northwestern University, B. S. 1892.

D. C. Rybolt, Principal of High School, Akron, Ohio.
Ohio Wesleyan University, A. B. 1893.

D. Fall, Professor of Chemistry, Albion College, Albion, Mich.
University of Michigan, B. S. 1875, M. S. 1882; Albion College, Sc. D. 1890.

W. L. Whitney, Teacher of Chemistry in High School, Saginaw, E. S. Michigan.
University of Michigan, Ph. B. 1894.

W. A. Redenbaugh, Instructor in Chemistry, University of Illinois, Dartmouth College, B. S. 1893, Ph. D. 1897.

G. F. Weida, Professor of Chemistry, Ripon College, Ripon, Wis.
University of Kansas, B. S. 1890; Johns Hopkins University, Ph. D. 1894.

G. B. Frankforter, Dean of the School of Chemistry, University of Minnesota.
University of Nebraska, B. S. 1886, M. A. 1888; University of Berlin, Ph. D. 1893.

W. S. Hendrixson, Professor of Chemistry, Iowa College, Grinnell, Iowa.
Harvard University, A. M. 1889, Ph. D. 1893.

E. F. Coffeen, Superintendent of Schools, Marshalltown, Iowa.
Carleton College, B. L. 1893, M. L. 1898.

H. Hale, Professor of Chemistry, Drury College, Springfield, Mo.
Emory College, A. B. 1899; University of Chicago, S. M. 1902.

F. N. Peters, Teacher of Chemistry, Central High School, Kansas City, Mo.
University of Missouri, A. B. 1887, A. M. 1890; Illinois Wesleyan University, Ph. D. 1903.

B. Dales, Associate Professor of Chemistry, University of Nebraska.
University of Nebraska, B. S. 1897, M. A. 1899; Cornell University, Ph. D. 1901.

H. A. Senter, Head of Department of Chemistry, High School, Omaha, Nebraska.
University of Nebraska, B. Sc., 1893; Heidelberg, Ph. D. 1896.

E. A. White, Teacher of Chemistry, High School, Kansas City, Kansas.
University of Kansas, A. B. 1904.

Margaret V. Maguire, Teacher of Science, High School, Mitchell, South Dakota.
University of Nebraska, B. Sc. 1904.

Hans W. Schmidt, Teacher of Chemistry and Electrical Engineering, Central High School, St. Paul, Minn.

G. A. Clark, Professor of Chemistry and Physics, Yankton College, Yankton, S. D.
Hillsdale College, M. Ph. 1890.

G. L. Holter, Professor of Chemistry, Agricultural and Mechanical College, Stillwater, Oklahoma.
Pennsylvania State College, B. S, 1886.

## BOTANY.

C. MacMillan (Chairman), Professor of Botany, University of Minnesota.
University of Nebraska, A. B. 1885, A. M. 1886.

F. C. Newcombe, Professor of Botany, University of Michigan.
Leipzig, Ph. D. 1893.

L. Murbach, Head of Department of Biology, Central High School, Detroit, Mich.
University of Michigan, Ph. B. 1889, B. S. 1890; Leipzig, Ph. D. 1894.

C. R. Barnes, Professor of Plant Physiology, University of Chicago.
Hanover College, A. M., Ph. D. 1886.

O. W. Caldwell, Professor of Botany, Eastern Illinois State Normal School, Charleston, Ill.
Franklin College, B. S. 1894; University of Chicago, Ph. D. 1898.

R. A. Harper, Professor of Botany, University of Wisconsin.
Bonn, Ph. D. 1896.

A. H. Christman, Teacher of Science, Stout School of Domestic Economy, Menomonie, Wis.
University of Wisconsin, B. S. 1903.

M. F. Arey, Head of Department of Natural Science, Iowa State Normal School, Cedar Falls, Ia.
Bowdoin, A. B. 1867, A. M. 1870.

Mary I. Steele, Teacher of Biology, Central High School, Kansas City, Mo.
University of Missouri, B. S. 1900, M. A. 1901.

C. E. Bessey, Professor of Botany and Dean, University of Nebraska.
Michigan Agricultural College, B. Sc., M. Sc.; Iowa State University, Ph. D.; Grinnell College, LL. D.

E. A. Bostrom, Teacher of Botany, High School, Lincoln, Nebraska.
University of Nebraska, A. B. 1902.

Alberta Cory, Teacher of Botany, High School, Kansas City, Kansas.

C. S. Parmenter, Vice-President of Baker University, Baldwin, Kansas.
Allegheny College, Ph. D.

Eloise Butler, Teacher of Botany, South Side Hih School, Minneapolis, Minn.

Margaret A. Thompson, Teacher of Botany, State Normal School, Spearfish, S. Dakota.
State Normal School, Winona, Minn., 1886.

M. F. Guyer, Professor of Biology, University of Cincinnati.
University of Chicago, B. S. 1894; University of Nebraska, A. M. 1897; University of Chicago, Ph. D. 1900.

## ZOOLOGY.

J. Reighard (Chairman), Professor of Zoology, University of Michigan.
University of Michigan, Ph. B. 1882.

C. J. Herrick, Professor of Zoology, Denison University, Granville, Ohio.
University of Cincinnati, B. S. 1891; Denison University, M. S. 1895; Columbia University, Ph. D. 1900.

E. L. Moseley, Teacher of Science, High School, Sandusky, Ohio.
University of Michigan, A. M. 1885.

W. A. Locy, Professor of Zoology, Northwestern University.
University of Michigan, B. S. 1881, M. S. 1884; University of Chicago, Ph. D. 1895.

F. L. Charles, Instructor in Biology, Northern State Normal School, DeKalb, Ill.
Northwestern University, B. S. 1904, M. S. 1905.

H. D. Densmore, Professor of Botany, Beloit College.
Beloit College, A. B. 1886, A. M.

L. Atherton, Head of Department of Biology, High School, Oshkosh, Wis.
Albion College, B. S. 1895; University of Michigan, M. S. 1899.

H. F. Nachtrieb, Professor of Animal Biology, University of Minnesota.
University of Minnesota, B. S. 1882.

W. W. Norris, Professor of Zoology, Iowa College, Grinnel, Ia.
Iowa College, B. A. 1886.

J. A. Anderson, Head of Department of Biology, High School, Dubuque, Iowa.
Lake Forest College, A. B. 1897, A. M. 1898.

L. E. Griffin, Professor of Biology, Missouri Valley College, Marshall, Mo.
Hamline College, B. A. 1895; Johns Hopkins University, Ph. D. 1900.

J. W. Scott, Teacher of Biology, Westport High School, Kansas City, Mo.
University of Missouri, A. B. 1896, A. M. 1897; University of Chicago, Ph. D. 1904.

Caroline E. Stringer, Head of Department of Biology, High School, Omaha, Nebraska.
University of Nebraska, B. Sc. 1902, A. M. 1904.

J. M. Matheny, Superintendent of Schools, Flandreau, South Dakota.
University of Indiana, B. S. 1897, A. B. 1902.

A. Pihlblad, Professor of Biology, Bethany College, Lindsborg, Kansas.
Bethany College, A. B. 1894, A. M. 1896; University of Chicago, M. D. 1899.

C. E. Johnson, Teacher of Science, Sumner County High School, Wellington, Kansas.
Kansas State Normal, B. P. 1895; Kansas State University, A. M. 1898.

C. P. Lommen, Professor of Biology, University of South Dakota, Vermillion.
University of Minnesota, B. S. 1891.

## COMMERCIAL SUBJECTS.

E. V. Robinson (Chairman), Principal Central High School, St. Paul, Minn.
University of Michigan, A. B., A. M.; Leipzig, Ph. D.

F. C. Hicks, Professor of Economics and Civics, University of Cincinnati.
University of Michigan, A. B. 1886, Ph. D. 1890.

D. Kinley, Dean of Graduate School, Director of Courses in Commerce, Professor of Economics, University of Illinois.
Yale University, A. B. 1884; University of Wisconsin, Ph. D. 1893.

H. E. Brown, Principal High School, Rock Island, Ill.
Iowa College, Ph. B. 1899.

F. L. McVey, Professor of Political Economy, University of Minnesota.
Ohio Wesleyan University, A. B. 1893; York University, Ph. D. 1895.

M. M. Beddall, Principal High School, Boone, Iowa.
University of Wisconsin, B. L. 1897.

I. A. Loos, Professor of Political Economy, State University of Iowa.
Otterbein University, A. B. 1876, A. M. 1879; Penn College, D. C. L. 1898.

M. S. Wildman, Assistant Professor of Economics, University of Missouri.
University of Chicago, Ph. D. 1904.

P. B. S. Peters, Director of Business Course, Manual Training High School, Kansas City, Mo.
Kansas City Law School, LL. B. 1900.

G. A. Gregory, Superintendent of Schools, Crete, Nebr.
Doane College, B. S. 1881.

N. M. Graham, Principal High School, South Omaha, Nebr.
University of Nebraska, A. B.

D. T. Walker, President, Watertown Commercial College, Watertown, South Dakota.

## MANUAL TRAINING.

C. M. Woodward (Chairman), Dean of School of Engineering and Architecture, Washington University, St. Louis.
Harvard University, A. B. 1860; Washington University, Ph. D. 1874, LL. D. 1905.

T. K. Lewis, Assistant Professor of Architectural Drawing, Ohio State University.
Ohio State University, B. S. 1894.

J. W. Carr, Superintendent of Instruction, Dayton, Ohio.
Indiana University, A. B. 1885, A. M. 1890.

G. N. Carman, Director, Lewis Institute, Chicago, Ill.
University of Michigan, A. B. 1881.

C. A. Bennett, Professor of Manual Arts, Bradley Polytechnic Institute, Peoria, Ill.
Worcester Polytechnic Institute, B. S.

J. A. Phillips, Professor of Drawing, University of Illinois.
University of Illinois, B. S. 1893.

J. J. Flather, Professor of Mechanical Engineering, University of Minnesota.
Yale University, Ph. B. 1885; Cornell University, M. M. E.

G. F. Weitbrecht, Principal, Mechanic Arts High School, St. Paul, Minn.
Amherst College, A. B. 1874.

A. C. Newell, Supervisor of Manual Training, West Des Moines, Iowa.
University of Michigan, B. S. in E. E., 1892.

C. H. Bailey, Director of Manual Training, Iowa State Normal School, Cedar Falls, Ia.
Iowa State University, B. S. in C. E., 1895; Columbia University, B. S. 1903.

C. R. Richards, Professor of Mechanical Engineering, University of Nebraska.
Purdue University, B. M. E., M. E. 1891; Cornell University, M. M. E. 1895.

W. M. Davidson, Superintendent of Instruction, Omaha, Nebr.
University of Kansas, A. B.

A. A. McDonald, Principal, High School, Sioux Falls, South Dakota.
Oberlin College, A. B. 1900.

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**The following resolution was presented by President Baker and adopted by the Commission:**

**That the Commission recommends the publishing each year by the Association of a corrected statement of the definitions of units and requests the colleges and universities represented in the Association to publish the definitions of units, corrected each year, for the use of the high schools of their respective states.**

**It was voted that chairmen from the committees**

on definitions of units be named by the Secretary from the lists submitted by the Inspectors.

Professor C. R. Mann, of the University of Chicago, told the Commission of a concerted movement by various organizations of teachers of physics to prepare a satisfactory definition of the unit in physics.

Chairman Whitney, of the Board of Inspectors, presented to the Commission a printed report on Standards of Admission and Accredited Schools. (See pp. 124-129.) The report was adopted.

The following amendment to the rules for admission of accredited schools was recommended by the Board and adopted by the Commission:

Schools once on the accredited list shall be required to make a full report once in three years and a partial report yearly, giving data as to new teachers and other important changes.

The Commission adjourned to meet immediately after the adjournment of the Association.

The second meeting of the Commission was held Saturday, March 24, at 11:30 A. M.

Chairmen of the committees on definitions of units were chosen as follows:

English: F. N. Scott, University of Michigan.

Mathematics: C. E. Comstock, Bradley Polytechnic Institute.

History: J. A. James, Northwestern University.

Latin and Greek: E. W. Coy, Hughes High School, Cincinati.

German: Laurence Fossler, University of Nebraska.

French and Spanish: B. L. Bowen, Ohio State University.

Physics: C. R. Mann, University of Chicago.
Chemistry: H. E. Griffeth, Knox College.
Physical Geography: C. E. Peet, Lewis Institute.
Botany: C. McMillan, University of Minnesota.
Zoölogy: Jacob Reighard, University of Michigan.
Manual Training: C. M. Woodward, Washington University.
Commercial Subjects: E. V. Robinson, Central High School, St. Paul.

Acting President Judson was chosen Chairman of the Commission, President Baker Vice-Chairman, and Director Carman, Secretary.

A committee, consisting of the Chairman, Vice-Chairman, and Secretary, was appointed to prepare and present to the Commission a plan for inspecting and accrediting colleges.

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The report of the Board of Inspectors was presented by Professor A. S. Whitney, of the University of Michigan, Chairman of the Board, as follows:

## REPORT OF THE BOARD OF INSPECTORS.

### *STANDARDS of ADMISSION.*

The following constitute the standards of admission to the accredited list of the North Central Association of Colleges and Secondary Schools for the present year:

1. No school shall be accredited which does not require fifteen units, as defined by the Association for graduation.

2. The minimum scholastic attainment of all high school teachers shall be equivalent to gradua-

tion from a college belonging to the North Central Association of Colleges and Secondary Schools, including special training in the subjects they teach, although such requirements shall not be construed as retroactive.

3. The number of daily periods of class-room instruction given by any one teacher should not exceed five, each to extend over at least forty minutes in the clear. (While the Association advises five periods, the Board of Inspectors has rejected absolutely all schools having more than six recitation periods per day per teacher.)

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught as outlined by the Association.

5. The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.

6. Wherever there is reasonable doubt concerning the efficiency of a school, the Association will accept that doubt as ground sufficient to justify rejection.

7. The Association has omitted for the present the consideration of all schools whose teaching force consists of fewer than five teachers exclusive of the Superintendent.

8. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the in-

spector. All hearsay evidence, no matter from what source, is rejected.

9. All schools whose records show an abnormal number of pupils per teacher, as based on average number belonging, even though they may technically meet all other requirements, are rejected. The Association recognizes thirty as a maximum.

10. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the Association.

11. The organ of comunication between the accredited schools and the Secretary of the Commission for the purpose of distributing, collecting and filing the annual reports of such schools and for such other purposes as the Association may direct, is as follows:

a. In states having such an official, the Inspector of Schools appointed by the State University. b. In other states the Inspector of Schools appointed by state authority, or, if there be no such official, such person or persons as the Secretary of the Commission may select.

The above plan contemplates the making of but one annual report to the Commission by each school, said report to be made directly to the state authority and by him transmitted to the Secretary of the Commission for permanent filing.

The Association is very conservative, believing that such action will eventually work to the highest interests of the schools and the Association It aims to accredit only those schools which possess organization, teaching force, standards of scholarship, equipment, esprit de corps, etc., of such character as will unhesitatingly commend them to any educator, College or University in the North Central territory.

# ACCREDITED SCHOOLS.

## COLORADO.

Canon City,
Durango,
Fort Collins,
Golden,
Grand Junction,
Greeley,
Idaho Springs,
Leadville,
Loveland,
Pueblo:
  Central,
  Dist. No. 1,
Trinidad,
Victor.

## ILLINOIS.

Alton,
Aurora:
  East,
  West,
Belvidere, (South)
Bloomington,
Champaign,
Chicago:
  Austin,
  Calumet,
  Englewood,
  Hyde Park,
  Jefferson,
  John Marshall,
  Joseph Medill,
  Lake,
  Lake View,
  North West Div.; (Tuley),
  R. T. Crane (Man. Train'g),
  Robert A. Waller,
  South Chicago,
  Wendell Phillips,
  William McKinley,
Clyde (Morton Tp.),
Danville,
Decatur,
De Kalb Tp.,
Elgin,
Elgin Academy,
Evanston Tp.,
Freeport,
Harvey (Thornton Tp.),
Highland Park (Deerfield Tp.),
Joliet Tp.,
Kankakee,
Kewanee,
La Grange Tp.,
La Salle (Peru Tp.),
Moline,
New Trier Tp. (Kenilworth),
Normal,
Oak Park Tp.,
Ottawa Tp.,
Peoria,
Pontiac Tp.,
Princeton Tp.,
Quincy,
Rockford,
Rock Island,
Savanna Tp.,
Springfield,
Sterling Tp.,
Streator Tp.,
Waukegan.

## INDIANA.

Elkhart,
Fort Wayne,
La Porte,
Richmond,
South Bend.

## IOWA.

Boone,
Burlington,
Cedar Rapids,
Corning,
Council Bluffs,
Davenport,
Des Moines:
  East,
  North,
  West,
Dubuque,
Fort Dodge,
Grinnell,
Iowa City,
Keokuk,
Marshalltown,
Mason City,
Ottumwa,
Red Oak,
Sheldon,
Sioux City,
Washington,
Waterloo (East).

## KANSAS.

Fort Scott,

Junction City,
Leavenworth,
Sumner Co. (Wellington),
Topeka,
Wichita,
Hutchinson,
Lawrence.

## MICHIGAN.

Adrian,
Alpena,
Ann Arbor,
Battle Creek,
Bessemer,
Benton Harbor Col. Inst.,
Benton Harbor,
Calumet,
Charlotte,
Coldwater,
Delray,
Detroit:
- Central,
- Eastern,
- Western,
- Home and Day,
- University School,

Dowagiac,
Escanaba,
Ferris Institute,
Flint,
Grand Rapids Central,
Hancock,
Hastings,
Hillsdale,
Houghton,
Holland,
Iron Mountain,
Jackson,
Kalamazoo,
Lansing,
Lake Linden,
Manistee,
Marshall,
Marquette,
Mich. Military Academy,
Michigan Seminary,
Monroe,
Muskegon,
Negaunee,
Niles,
Owosso,
Pontiac,
Port Huron,
Saginaw, E. S.,
Saginaw, W. S.,
Sault Ste. Marie.
St. Joseph,
Traverse City,
Wyandotte.

## MINNESOTA.

Albert Lea,
Anoka,
Austin,
Duluth,
Faribault,
Fergus Falls,
Hastings,
Little Falls,
Marshall,
Minneapolis:
- Central,
- East,
- North,
- South,

Owatonna,
Red Wing,
Rochester,
St. Cloud,
St. James,
St. Paul:
- Central,
- Cleveland,
- Humboldt,

Stillwater,
Winona.

## MISSOURI.

Acad. Drury Col.,
Kansas City:
- Central,
- Manual Training
- Westport,

Kirkwood,
St. Louis:
- Central,
- McKinley,
- Mary Institute,
- Smith Academy,
- Wash. Univ. Man. Training,

St. Joseph,
Trenton,
Webster Groves.

## NEBRASKA.

Beatrice,
Brownell Hall,
Hastings,
Lincoln Academy,
Lincoln,
Omaha.

## SOUTH DAKOTA.

Deadwood,
Lead,
Mitchell,
Sioux Falls,
Watertown,
Yankton.

## OHIO.

Akron,
Ashtabula,
Bellefontaine,
Bowling Green,
Canton,
Cincinnati:
  Hughes,
  Walnut Hills,
  Woodward,
Cleveland:
  Central,
  East,
  Glenville,
  Lincoln,
  South,
  West,
Columbus:
  Central,
  East,
  North,
  South,
Delaware,
East Cleveland,
East Liverpool,
Elyria,
Fostoria.
Gallipolis,
Greenville,
Hamilton,
Lakewood,
Lima,
Mansfield,
Marietta,
Marion,
Middletown,
Mount Vernon,
Oberlin Academy,
Newark,
New Philadelphia,
Painesville,
Piqua,
Portsmouth,
Salem,
Sandusky,
Steubenville,
Toledo,
Troy,
Van Wert,
Warren,
Washington C. H.,
Xenia,
Youngstown.

## WISCONSIN.

Antigo,
Appleton,
Ashland,
Baraboo,
Beaver Dam (Wayland Acad.),
Beloit,
Berlin,
Eau Claire,
Elkhorn,
Fond du Lac,
Fort Atkinson,
Grand Rapids,
Hudson,
Janesville,
Kenosha,
La Crosse,
Madison,
Manitowoc (North Side),
Marinette,
Marshfield,
Menomonie,
Merrill,
Milwaukee:
  East Division,
  South Division,
  West Division,
  Sem. Dept., Downer Col.,
Oshkosh,
Plymouth,
Racine,
Racine (Gram. School of Racine College),
Ripon,
Sheboygan,
Superior:
  Blaine,
  Nelson Dewey,
Tomah,
Waukesha,
Waukesha (Carroll Col. Acad.),
Wausau,
Wauwatosa,
Whitewater.

It was moved by President Baker that the report of the Commission (including the report of the Board of Inspectors), and the recommendations and amendments proposed therein be adopted. The motion was adopted.

It was moved by Superintendent Nightingale (1) that the name of the Commission be changed to read, "The Commission on Accredited Schools and Colleges" and (2) that the Commission be requested to set in motion the machinery for the inspecting and accrediting of colleges. The question being divided, the first part of the motion, (1), was adopted. It was moved that the second part of the motion, (2), lie on the table. The motion was adopted.

It was moved by Professor Hicks that the Commission be instructed to report at the next annual meeting on the advisability of adopting a plan for the inspection of colleges and universities and the standardizing of their work. The motion was adopted.

## Third Session Saturday Morning

The Association was called to order by the President at 10 o'clock A. M.

The question set for discussion was as follows: To what extent and by what methods should first-year students be supervised?

Professor Thomas Arkle Clark, Dean of Undergraduates, The University of Illinois, Urbana, opened the discussion with the following paper:

### TO WHAT EXTENT AND BY WHAT METHODS SHOULD THE WORK OF FIRST YEAR MEN IN COLLEGES AND SECONDARY SCHOOLS BE SUPERVISED?

DEAN THOMAS ARKLE CLARK, UNIVERSITY OF ILLINOIS.

My experience in secondary school work has been so limited that I am afraid it hardly warrants any generalization in this paper on the supervision of the work of high school freshmen. Excepting for three years experience in an Academy, where the conditions were almost identical with those which exist in a small college, and an erratic connection with the board of education of my own little home city, I have had to do only with college men. Neither has my experience brought me much information with regard to the vagaries of young women, for in the University of Illinois the supervision of the work of the young women, although along the same general lines as that of the men, is with my full approval, I may say, in charge of a woman. My work is with the young men only, and my illustrations and conclusions will of

necessity be drawn from my experience with them.

These facts, however, I feel sure will not in any great degree make the situation different from what it would otherwise be. The general principles are in the main the same, whether we apply them to men or to women, or to first year students in college or in the high school.

There is something to be said in favor of letting a man go his own way, and work out his own mental and moral salvation by his own methods. It may ruin some men, we are told, but perhaps they would be of little value under the most careful supervision, and might as well find it out early as late. Those who survive the process are the stronger for the struggle, have learned the strength of their own powers, and the necessity of self-reliance. Those who oppose any special supervision of the work of freshmen can present a strong case. Much that they say would appear more reasonable to me, however, if it gave fewer indications of selfishness, for I confess that many of those whom I have known to advocate freedom most strongly have been quite willing to omit from their work that which caused them personal trouble, or personal discomfort. The man who thinks that students should be let alone is too often one who neither understands nor sympathizes with the student point of view, and who cares more for his own personal comfort than for the welfare of the college freshman. Supervision calls for individual and personal interest. It calls for hard work, and teachers sometimes shirk responsibility with composure.

Though I believe in supervision, I do not wish to underestimate the value of freedom, for much of the

benefit and training which come from a college course come from the opportunity it gives the student to decide his own difficulties, to assume responsibility, and to manage his own time and money. I believe that it takes quite as much judgment for a student to spend money wisely that is sent him from home as to earn it for himself, and that there is quite as much, and quite as desirable training in the spending as in the earning of money. The average man who works his way through college does not use his freedom more wisely than does the man whose father foots the bills.

So far as the first year student can safely direct his own efforts, and can choose and plan, and act independently, it is better that he be allowed to do so. It is better even that at times he make mistakes, and go wrong than that all initiative should be taken away from him. It is not the making of mistakes, or the going wrong, that we so much deplore, — it is the fact that some who go wrong may never get right. I have in mind now a student who went sadly to pieces in his freshman year, but who learned from the experience the extent of his own weakness, and who has been a much stronger and a much better man than he would otherwise have been. The child learning to walk must often stumble, and he will have many a hard knock before he has learned completely to control his muscles. It is only by going alone that he, as well as his elder brother, gains strength and self-reliance.

Every year I am asked by mothers and fathers of prospective college students as to the advisability of their coming to college with their children, in order that the young people may be properly looked after,

and nourished, and cared for. I almost invariably feel justified in advising against it. Responsibility and freedom of action are what the young students most need for their best development, and the constant supervision in the home robs them of the opportunity to get such training. An anxious mother of an only son said to me only last week that she seriously contemplated moving to Champaign in order to look after her boy. He was not properly fed. He was not doing his work according to her methods, and his stockings were in a dreadful condition. It is disagreeable and uncomfortable to have holes in one's stockings, but I tried to advise her that the necessity of thinking and acting for himself was worth more to her son at his age than carefully darned hose, and a varied selection of breakfast foods.

There are certain existing conditions, however, both with regard to the high school freshman, and the college freshman, which make a reasonable amount of supervision not only desirable, but absolutely necessary. The boy enters high school at an age the most critical of any in his life. His rapid physical development at this time often leaves him with little strength. New temptations come to him from all sides, and tendencies develop in him to all sorts of nerve racking habits. He does not understand himself, and, worse than this, too often those at home, and those who look after his welfare at school, do not understand him any better. He is at an age when he wishes to do rather than to think, where the easiest thing in the world is for him to learn bad methods of study, and to give his time to other things than his books.

The subjects which he is to take up are in most

cases entirely new to him. He has done well in the grades. He is expected to continue to do so in the high school. Too often fathers and mothers who should be intelligent are willing, and anxious, to have work crowded upon him beyond his powers to do it well. Only a short time ago I had, as a school official, a rather long discussion with the mother of a boy with regard to the child's carrying six subjects in the high school. She is really an intelligent woman, is a graduate of two New England colleges for women, and is the mother of nine children, but she had not developed judgment enough to know that she was doing a boy an injury by crowding him beyond his ability. She is willing to sacrifice almost anything in order that he may save a year in school. The alleged aid of the parent, of which a good deal is made, I have not found in critical cases to be the pillar of support that it is sometimes reputed to be. I have sometimes thought that even in the high school there are few who know less about the work of students than the parents themselves, from whom we should expect the most.

Not only are the subjects which the high school freshman takes up new, but the method of study is different. He is left more to himself. He is allowed greater freedom of all kinds. Where previously he may have depended upon his memory, now he is expected to think. Many distractions are working in the modern high school, I am told. Social diversions, and athletics, and secret organizations are not confined entirely to the college. With all these things to take his time, and to distract his attention, it is certainly desirable that he start right; that some one know what he is doing, and how he is doing it; and

perhaps further also that some one should care. Except in large cities, the opportunities for a careful and intelligent supervision, for a reasonable knowledge of the conditions under which the student must do his work, are more easily obtained by the high school teacher than by the teacher in college.

Notwithstanding the amount which we see in the newspapers, and the amount which we hear in all communities about college work and college life, the high school graduate comes to college with a very vague idea of what it all means, and of what will be expected of him. It is an annual experience, of which I have scores of illustrations, that the college freshman who fails, often does so because, as he says, he underestimated both the amount and the character of the work expected of him. He wakes up too late to the real situation.

The conditions under which the college freshman must live are not always conducive to study. In the average college in the Middle-West students are crowded together in small rooms, where they work, and play, and sleep in rather limited quarters. There is often a confusion which is not conducive to quiet thought and study. The fact that he is allowed absolutely to use his own time as he pleases is attractive. He may choose his own companions, form his own habits, employ his own time as he sees fit, and come and go at will. Unless he neglects his work completely, he will be allowed a good deal of liberty before he is called to account. Too often it is the incidents of college life, — the recreations, the distractions, — which appeal to him most strongly at first. There are, especially in coeducational institutions, social matters with all their allurements. There are

the fraternities which, beneficial as I believe them to be in the college community, are rather hard during the rushing season on the attractive freshman without a level head and a strong backbone. There is the athletic situation, including football, at whose door the newspapers and college faculties have piled quite as much evil as it seems to me the circumstances warrant. There are all of these things, and besides, we may as well face it openly, as every college freshman must, there is drinking, and gambling, and the scarlet woman, standing with open doors and open arms to rob him of his money and his honor. These very conditions, this very freedom, however, may be of the greatest value to him in the development of his character, or may lead him to ruin; and it is because of these conditions that I am of the opinion that intelligent supervision of the freshman's work is exceedingly desirable.

In the supervision of the work of the college freshman I do not think that he should be treated quite as a child. I feel strongly that he should be left free to choose for himself in most if not all of the things which come into his life. However free he seems to be left, some one should know, as far as it is possible to know, all about him, — where he lives, what his habits are, the men with whom he associates, the regularity of his attendance upon class, and the extent to which he is keeping up his work, and meeting the requirements laid down for him in the institution to which he belongs.

Some one may say with regard to this point that it is practically impossible for one man to know all about all of the students in a large institution. This may be more or less true where the student life is

somewhat scattered, but for the ordinary situation, where the student body does not go beyond three or four thousand, I am sure from my own experience that it is possible for a man before the end of the college year, to have an intelligent knowledge of every student in the institution who in any way needs attention. In order to do this, however, he must occasionally be awake, and at intervals more or less active. He must keep in touch with student thought and student interests. He must be familiar with student organizations, and he must be known to be in sympathy with all that concerns itself with the welfare of the individual student. Otherwise he will be told little and know less.

Few formal restrictions should be laid upon the student, and he should be free to choose for himself, and to come and go as he pleases, so long as he pleases not to go too far wrong. There need be few rules, for in all college management, I have found that the fewer the rules the better for the student and for the college authorities. It is enough that some college officer should have specific knowledge about the student's work and conduct, and should be known to have it.

The greatest safeguard possible to the student, and the greatest incentive to him to keep up his work is this fact that some one knows what he is doing. I called in a freshman one day last week. I had met him once or twice before in a semi-official way, but not in such a way as to cause him to think that I knew anything about him. I did know, however, more than he suspected. Like most freshmen he had never been away from home before. He had had a rather prominent place in his home town. He

had had no opportunity, nor desire, to form bad habits. He had been under the restrictions of home and home surroundings. He had not gotten on as well in college as he had expected. His habits had grown careless. He had had some unexpected misfortune. He had been drunk the night before I saw him, and there had been other things worse. I talked it all over with him, and I feel sure that it will not happen with him again. He said to me, "I am sure I should not have done it if I had thought any one knew or would know. I supposed in this big institution, with its thousands of students, that a man was not under restrictions of any kind, that nobody would know what he was doing, and that nobody would care." It was like an electric shock to him to feel that somebody had really known all the time, and that somebody was likely to know in the future.

However good a mechanical system may be devised for supervising the work of students it will fail unless there is something more to it than a system. Rules may be formulated, and committees appointed, and the most complicated system devised, and nothing may come of it. A general knowledge of the students' situation is required, a warm sympathy with all student undertakings, an intelligent understanding of the student point of view. The one who is to supervise the work of students must have a good deal of information that he cannot talk about, and he must get it by knowing men, and by being among them. He must know many things about college life that are not public property. Above all he must have a reputation for being reasonable and fair, and a safe and sympathetic man in whom to

that the student knows that it is, that helps more than anything else to hold him to the right path.

I have myself been helped in keeping track of students more perhaps through my knowledge of University organizations than by any other one method. Practically every fraternity and club in the University has a regular committee appointed to look after the work of the freshman, and these have been very willing to co-operate with me in an attempt to know what the freshman and other students are doing, and to stimulate them to do their very best. I have come almost to the generalization that the only man in college whom it is almost impossible to get at, is the man who does not belong to anything. I have found the greatest help in the college organizations.

Any one who looks after the work of freshmen cannot afford to neglect the help of the individual student. I have made it the practice through all the years that I have had to do with college students never to ask a student anything about another man which would embarrass him in any way, or which he would hesitate to answer. Students will almost without exception tell all that is to be told about themselves. They seldom divulge, and ought not to be asked to do so, anything that is detrimental to the character of their comrades. I have, however, found the greatest help in looking after derelict students in the individuals with whom they were associated.

Less than a week ago I was almost at my wits end with regard to a certain young fellow who was going to the devil by the quickest route he could discover. There seemed no way left, excepting to send him home, and I was not yet quite willing to have this done. As a last resort, I called in his roommate, who

confide. A "square deal' for every man is as necessary in college as in the world at large.

What a man does the first six weeks in college,—certainly what he does the first half year, — in the majority of cases, settles the character of the work he will do throughout his college course. Occasionally a man may overcome the habits which he formed during the first part of his college life and occasionally he may change his methods of study, but in the majority of cases these two things are accomplished with great difficulty. Whoever supervises the work of students must give quite as much attention to the habits of study and the habits of life of the individual student as to anything else.

During an experience of a number of years, in which the greater part of my time has been given to looking after the work and conduct of college students, I have come more and more to the conclusion that the failure of students to carry their work is dependent largely upon their conduct. Bad methods of study, or no study at all, or intemperate habits of one kind or another, are the direct cause of nine-tenths of the failures in college. In most cases these habits are formed during the first half year of the student's residence in college.

It will be seen from all that I have said that the most effective method of supervising the college student's work from my own point of view is to know the student himself, and, so far as possible, to know him personally and intimately. I do not believe that it is necessary, however, to tell the student what one knows, or in many cases even to talk about it to him or to any one else. It is the simple fact that such knowledge is in the possession of a college officer and

was a big, husky Irishman, and presented the situation to him. I said, "Either Brown must reform, or he must go home, and I think there is nobody who can help him quite as much as you." When he discovered how much I knew, he was willing to talk to me, and we went over the whole situation in a very friendly way. When I had finished, he said, "You call Brown in, and tell him what he has to do. Then you tell me what you have told him, and I'll see that he does it, or I'll lick him." I have every indication that Brown is reforming. He can very well stand out against college officers, and he can sometimes, without much difficulty deceive them, but when his own companions get after him, he must give in, or suffer the consequences.

The man who is to supervise the work of students will not be successful if he is a stay-at-home. He must be interested in all the things in which students find interest. If he finds time to sit on the bleachers for a few minutes and watch the practice; if he attends the mass meetings and contributes his share to the enthusiasm; if his face is seen among the crowd at the celebration of the victory; if he goes to a student smoker, or a class party, when he is invited, and he will be invited if he goes; he will have a much more intelligent knowledge of the students. He will know them under other conditions than those which exist in the class room. He will have a more intelligent knowledge of them as individuals, and he will be much better able to give them advice when he sees them sitting across the desk from him in his own office.

The college officer who would deal intelligently with the college freshman must be on terms of

pretty close friendship with students. If he insists that the student keep it always in mind that he is a professor, or a dean, he will not be of the greatest possible benefit in supervising the work of the young student. The man who has forgotten that he was ever young, or that he himself cut classes to see a ball game, will not make a good disciplinarian. It is worth a good deal to be able to sit down and talk with a student in a friendly way for half an hour; it is worth a good deal more to have him want to come in of his own accord and talk with you, whether he has much of importance to say or not.

In addition to this general knowledge of the individual student, which though difficult I believe is not beyond possibility in almost any institution in the United States, there are of course certain mechanical regulations which will help the college officer in the supervision of the student's work.

According to our own system at the University of Illinois, for which I have been partially responsible, all absences from class exercises, for whatever reason, are reported daily to my office. The record of these absences is kept upon cards prepared for the purpose. It is possible by this means to see to what extent a student is cutting his class exercises. When the absences of any member of the freshman or sophomore classes aggregate one-eighth of the whole number of recitations in the course, such students are dropped from that course. Juniors may be absent one-fifth of the total number of recitations, and no restrictions are placed upon the absences of seniors. This does not mean that a student is allowed to cut without having his attention called to the fact. He is warned at least once before he reaches his limit,

and he is dropped from the course when he exceeds the number allowed. This system has been tried at the University for the past year, and it is the almost universal opinion of instructors that it has not only cut down the number of absences almost one-half, but it has also raised the standard of work.

The college officer may be helped very much, too, in the supervision of work of freshmen by a system of monthly reports from instructors on students who are not doing satisfactory work. If this is supplemented by a statement of those who fail to pass the regular monthly quizzes which are given in most courses, the supervising officer has at his disposal most of the information necessary to get a fair idea of what the student is doing.

I have already taken up enough time perhaps in the discussion of the subject. I hope I have made it clear that I believe thoroughly, so far as it is possible, in letting the student look after himself. I believe, however, that while he is looking after himself some college officer ought to know just what he is doing, — not for the sake of calling him to account, but for the sake of acting intelligently when the occasional need of action arises. I believe he will be helped best by taking advantage of all the opportunities possible to know the individual student, and I believe that if he does this it is not too much to expect him to know practically every man in college who needs to be known. More through his individual knowledge of the men than by any mechanical device will he be helped in the accomplishment of his purposes. Whatever these may be, they will fail unless they are accompanied by an intelligent knowledge of the individual.

The discussion was continued by Chancellor Winfield S. Chaplin, Washington University, St. Louis, as follows:

CHANCELLOR CHAPLIN:

I wish to express my high appreciation of the paper which had been read by Dean Clark. The University of Illinois is fortunate in having the right man in charge of disciplinary matters. The break in continuity between the grammar and the high school, and the high school and the college, is inevitable, as the regulations of each one are adapted to the average age of its pupils. There is much more freedom allowed in the high school than in the grammar school, and in the college than in the high school. This is a proper arrangement, because our purpose is to train young people to take care of themselves, and to carry on their studies, at the time of their graduation from college, without the aid of regulations. If, as I believe, the break in continuity in passing from one school to another is inevitable, then it is our duty to render this change as easy and as inexpensive to students as possible. It is the duty of every institution to face the conditions and do its best to save students from the accidents which might happen to them, if left to their own devices. The best arrangement yet tried is the advisory committee. It is well in the first years of the college to have students assigned to certain advisers, who may counsel them with regard to their work and conduct. I recognize that the success of this arrangement depends entirely on the personality of the advisers. If they are wise and if they recognize the necessity of acting as advisers and not as directors, and if they are willing

to give sufficient time to the students, so that the latter may still feel themselves responsible for choice of studies and for their own conduct, then the system is a success. If, on the other hand, persons assigned to this duty take upon themselves to direct students as to their choice of studies and conduct, or are unwilling to give the necessary time to the matter, then the system is a failure. In this, as in nearly every other matter relating to the government of students, the difficulty is to find the right kind of persons for advisers. An estimate that ninety per cent of the students in our educational institutions do not call for the administration of disciplinary measures would not be too high; the number who give trouble in the matter of discipline is relatively very small. One rule which has not commonly been adopted seems to me to be extremely important and desirable; a student who is habitually a bad influence, whether he has ever been caught in an overt act or not, should be immediately removed from an educational institution. In educational institutions men are selected for positions primarily because of their knowledge, secondarily because of their power to teach; I have never heard of a case in which a man was appointed to a position in a university primarily because of either his executive or disciplinary power. This being the case, it is not at all wonderful that the executive work of educational institutions is generally done in a very bad way, or that the disciplinary side is generally weak. In my opinion the man who does the most valuable work for any educational institution is the man who conducts successfully the disciplinary part.

Principal F. B. Pearson, East High School, Columbus, Ohio, was unable to be present but sent the following paper which was read by Principal W. M. Townsend, Central High School, Columbus, Ohio.

## SUPERVISION OF COLLEGE FRESHMEN.

PRINCIPAL F. B. PEARSON, COLUMBUS, OHIO.

This question presupposes some knowledge of college affairs by high school men, and *vice versa.*

This knowledge comes to high school men through their experience in college and from the students whom they send to college year by year. They are competent to judge, therefore, from the standpoint of the student. It often happens that a boy leaves the high school to enter college with a record behind him that gives joy to his teachers and friends, and that prophesies well for his future, but who, notwithstanding, fails in the first half year's work and returns home humilated, if not disgraced. The high school man naturally and inevitably concludes that, with proper supervision and guidance, the boy might have been saved. Hence it is that he welcomes such an opportunity as this to become oracular in setting the college man's feet upon the right path, and bidding him go and sin no more.

Supervision of first year students in college should apply, it would seem, to three phases of activity; which are, preparation for class work, athletics, and fraternity relations. The freshman is having his first taste of freedom, and quite naturally is somewhat intoxicated with it. Indeed, he finds himself in a veritable whirl amid his new experiences. His letters home, as well as his whole demeanor, betoken a condition of feverishness. This is not con-

ducive to downright hard work, and so there is much time lost in the very beginning. He hasn't had a talk with his high school teachers since June, and their wholesome counsel has largely evaporated. Besides, in his present state of exaltation at seeing a college student in his looking-glass, these high school teachers are rather commonplace people, after all, and really deserve his sympathy, if not his pity. All this time the staid professor sits there awaiting the coming of this freshman to his class fully conscious of his power to flunk him at the midyear. This professor is busy with the final proofs of the book he has written for use in high schools, and has barely time for his recitations, much less for the consideration of a mere freshman, no matter how feverish he may be. The greatest need of the boy just here is a friend, one who has been over the ground and who sees both sides of the question. Out of hard work must issue his salvation, and he needs a friend to show him how to attack the problem which a college course is supposed to solve. He needs to get his bearings at once, to become oriented the first day, and to do this he needs guidance. Student organizations sometimes help in this matter, but, generally, these organizations cannot follow up the work long enough for the best results. The boy loses time in trying to interpret the schedule and in discovering the lair of the professor, and the fever increases instead of abating. Moreover, in his present state of bewilderment, he is sorely tempted to assert himself in some way that his identity may not be wholly swallowed up in the student mass. It is difficult for him to realize that he is now at the foot of the ladder again, seeing that during the whole of vacation he has been cherishing the memory

of commencement, with its flowers, congratulations, and be-ribboned diploma. The transition has been sudden and abrupt, and the process of readjustment is not easy. Instead of going in through the narrow and difficult door of hard work, he is tempted to effect an entrance by means more easy and direct. Herein lies one of his greatest dangers, and right here he needs wise counsel.

This mental condition renders him particularly susceptible and responsive to the attentions of fraternity men, who, in advance, had been apprised of his coming, of his good record in the high school, of the high social status of his family, and of many other items that invest him with a sort of halo. Then ensues a period of "rushing," with all that the term has come to imply in these latter days,—a regime that taxes the time and strength, and often jeopardizes the class standing of the strongest and most earnest student. But what is a boy to do? He argues that these are fine fellows, that they are veterans in the service, and know the ways of college far better than the recruit, and that they will do nothing to impede his progress in all that makes for scholarship. The attentions they lavish upon him must, he thinks, be an earnest of their friendship for him and interest in all that concerns him. All this is before taking. Later on he may find these same friends chiding him on the score of poor work—calling unpleasant attention to the frail superstructure he has built upon the foundation that they themselves helped to make weak. In athletics the same condition of affairs obtains. Everybody wants to win, of course, and here is the door through which the freshmen may enter into the promised land. A fifty-yard run with a touch-

down means immortality—at least till the mid-year examination. The trouble with this boy is that, being human, he fails to discriminate between major and minor, between what is temporary and that which endures. A bird in the hand is worth an aviary next February. Let us eat, drink, and play foot-ball, and trust to the tender mercies of the professors and the efficacy of a rabbit's foot for the future. This is the philosophy and this the practice of many a candidate for rustication at the mid-year. A fraternity badge and a game leg at Thanksgiving are the heavenly twins that bear him above and beyond the contemplation of such terrestrial things as mathematics, language, and science.

There may be solace to the professor in the thought that college is but the survival of the fittest, after all, but if some of the energy that is expended in getting students were devoted to saving to the uttermost those that are gotten, there would be quite as much glory to the colleges and the number of graduates would be largely increased. The cry of "Man overboard!" seems not to disturb the complacency of the professor. When Huck Finn told Jim of Solomon's avowed purpose to cut the child in two, Jim calmly replied, "Wat's de diffence? Plenty mo'."

It were far better to abandon freshman recitations for the first two or three weeks if athletics and fraternities are to take precedence, and thus prepare the way for failure, discouragement, and disgrace later on. Certainly this one freshman is of more value than many sparrows, yea, even of more value than many victories on the athletic field, however great the value of these.

One thing that militates against the highest suc-

cess of Freshmen is the fact that too many professors detach themselves from these students as persons. They know them as mere names. This is an advance, of course, over the penitentiary, which recognizes people by numbers only. There are professors who now do not know the faces of students who have been in their classes since last September. In one college a young woman went into classes and recited for her sister, and the ruse was not suspected by the professors. Small wonder, then, that the freshman comes to think that the professor and himself live in different worlds.

If the faculties of colleges were recruited from among high school teachers instead of Fellows, the freshmen would be the gainers. A head full of knowledge is good, and a long list of degrees looks well in print, but the freshman would profit by an exchange of some of these for a heart full of kindly interest. The man who piles up a barricade of degrees against the freshman is missing a fine opportunity to do a service to his kind. If he would but make a breach in this barricade, walk through the breach, and take the freshman by the hand, the glory of this act would so illumine the degrees that they would be transformed as by spring house-cleaning. The best polish for a degree is made by taking equal parts of the milk of human kindness and the oil of gladness. Our country has injected the virus of democracy into Cuba, Porto Rico and the Philippines, and we are now ready to do a like service for the colleges and universities, and thus complete the ascending climax.

The whole problem of supervision will thus be solved. The student will become a personality, and no longer a mere specimen for the laboratory. There

will be common interests between student and professor. When the professor descends from his hobby and walks in friendship beside the student, the student himself will cease to ride his "pony," and both will be the better for pedestrianism. The professor who knows the boys best, their work, their aspirations, their difficulties, their lives — this professor has least to say in disparagement of the high schools and the preparation they have given to these boys. If all the professors knew the boys better, they would have greater respect for them and for the schools that prepared them, and they would be in position to make their college work more effective for citizenship.

It is surely possible to arrange the boy's time so that all the elements of college life may perform their rightful functions. These can, assuredly, be so correlated that class work will have the major place in the scheme of activities, and the other matters have adequate consideration as secondary affairs. Of course, this needs wise management. Nor need we be greatly concerned just here with the doctrines of predestination, free will, and all the rest. These are old enough to care for themselves. The question need not be obscured either, by such terms as "paternalism," or "leading strings." These are aside from the main proposition, which is the boy himself.

It would seem to be quite possible for a professor to have under his supervision from fifteen to twenty-five students. He could meet these on the first day and go over the situation briefly, and with a kindly interest. He could get from them the data that he would need, their daily programs, their home and college addresses, and such other information as

might be desirable. Thus at the very outset these boys would feel responsible to some one in authority, and this responsibility would prove an anchor to them. This group could be brought together at stated times for conference and help, should help be needed. Thus the whole perspective of college life could be shown to the boy by one whom he knows to be his friend.

Princeton and Smith have begun this work, and, in every college may be found a professor here and there who is working at the problem; and wherever such a professor is found he is recognized as a leader of men, a man who has the confidence and esteem of the students, a man who inspires to good work and fidelity to right standards, and a man who is conspicuous in all college affairs. Nor will scholarship necessarily suffer by such a plan. The luster of the professor's degrees need not be dimmed by the process. Quite the contrary. Moreover, the students will emulate his example and yearn day by day to win for themselves a place in the great republic of scholars. And the college itself by such a course will proclaim to the world, "I am my brother's keeper."

The discussion was continued by Principal J. E. Armstrong, Englewood High School, Chicago; Principal E. L. Harris, Central High School, Cleveland, Ohio; Professor C. A. Waldo, Purdue University, La Fayette, Indiana; Principal W. A. Crusinberry, West High School, Des Moines, Iowa; Principal A. J. Volland, Central High School, Grand Rapids, Michigan; Principal W. S. J. Bryan, Central High School, St. Louis; Professor Marshall S. Snow, Dean of the College, Washington University; and Professor H. F. Fisk, Northwestern University.

PRINCIPAL ARMSTRONG:

I would like to hear from others in regard to the best methods of caring for first year high school pupils. Our problems are as difficult as those of the colleges and universities. In our large city schools we have about as many pupils in first year each year as we have in the three other years combined. What can be done to hold more of these in school? There are two things which I am convinced will materially help. I am trying them in my school with good results. One of these is an effort to bring about a closer relation between the home and the school. Many parents have so little a conception of high school work that they become dissatisfied before they understand the aim of secondary school work. They have followed their children through the elementary school and have become familiar with its working. When the children reach high school, everything is different. The pupils drop from the ranks of the select to those of the least important. They have many teachers who slowly become acquainted with them. Discipline seems loose, and too much responsibility seems to be placed upon the child. I have made it my practice to assemble the first year pupils the first day and to explain to them the difference in the schools. I compare the elementary school and its methods and training to their mothers and the high school to their fathers, showing the different kind of care exercised by each.

We have a Parents' Club which meets monthly. All parents are invited to attend. Each parent and each teacher wears a button with the owner's name plainly written on it. This makes it easy for parents to find teachers they wish to see and to be found by

teachers who wish to see them. A light lunch is served consisting of coffee and wafers. After this some topic of interest pertaining to school work or management is discussed informally. This brings about a spirit of coöperation and friendly interest.

My second plan for caring for the interests of pupils is a scheme we have been trying but a few weeks and thus far is working well. We have divided the February entering class into boys' classes and girls' classes. This division does not affect the seating of pupils nor any of the social relations. It simply means limited segregation. I believe there is a fundamental difference in the minds of boys and girls during early adolescence which we have ignored. I believe most of the benefits of coeducation in high schools comes from the social relations of the sexes instead of from identical instruction. Boys and girls grow at different rates and the girl matures more grow at differing rates and the girl matures more quickly. At fourteen she is two years more mature in mind and body, so that she begins high school with a more settled purpose and steady aim than the boy of the same age. The boy of fourteen needs more exercise and sleep and finds it more difficult to concentrate his attention. Add to this the fact that the girls outnumber the boys five to one and it will be seen that there is little chance for them in the mixed class. Then, as boys have a keener appreciation of practical affairs, no wonder they grow weary of school life and take to business not simply to make a living but because business offers the stimulus they crave for utility. By collecting these boys into one class and the girls into another we may study their mental traits and adapt our work better to the needs

of each. After we have differentiated the boys from the girls in their early teens, we may then safely turn their diverging paths into parallel paths and each will be the better prepared for the work for which nature intended them.

PRINCIPAL HARRIS:

The college people can hardly be said to have a monopoly on the teachers who are unsympathetic in their work. A short time ago I said to a teacher with me, a teacher of fine intellectual ability, that I wished it were possible to make a bargain with him — "I should much like to trade half of your head for half a heart." He asked me what I meant and I replied that I meant just what I said. It would make a splendid combination, and make him a successful teacher.

I have some hesitancy of speaking of the lack of supervision in the first years of college life. I shall relate one incident. Two or three years ago I was visiting an eastern college. There were several of our former students in attendance there. I found one of these young men who although in good health had not been in class for a month. He was simply cutting all the time. When I returned I told his father, who had not been notified, that he better bring his boy home. Some time later I received notice from the college that the young man had failed in everything, indicating that he was not prepared. I was not at all surprised. The boy was prepared and could have done the work but he was easily influenced. He needed a friend and the guidance of a sympathetic instructor.

I speak of my own experience in the first year of

a secondary school. There are 700 in the entering class this year. I divided them into divisions or groups of about 50, each group under the supervision of a teacher who has them in two of the major subjects and who looks after them in all subjects. This teacher advises and encourages those under his care, meets their parents, and brings to me any case where the work needs to be lightened or changed. At the end of the term the record of the pupil was sent to the parent and returned signed. Soon after that I met each one of these pupils with the record and the teacher of the group. A word of compliment was given to the good pupils, a word of encouragement to the struggling ones, and criticism to those needing it. The pupil was invited to tell his troubles. In many cases too much outside work or poor health was found to be the cause of failure. The work was then made lighter, that is, the course prolonged. This plan has worked well, but it does take time and strength.

If, as has been said, the boy's future depends on the first three months work then certainly let the attention be given to the individual; let there be less of the class room teaching and lecturing and more of the sympathetic guidance and advice. The colleges owe something to the parents whose boys they have accepted.

PROFESSOR WALDO:

The paper discusses in an able and interesting manner one of the most important features of our large and rapidly expanding educational institutions. It presents one method of dealing with it in a very satisfactory manner The principal objection to it

is the obtrusive and therefore repellant machinery. The very prominence of the methods must in some measure impair their efficiency. The boy who loves his freedom is not charmed with the notion of a guardian however logical and wise the idea of a father-adviser may be and in any institution it will probably fall far short of universal favor and acceptance.

And yet for a young man in breaking home ties to be lost in the crowd at a great university is to him a serious misfortune and against the University where it occurs a serious charge. That this does not occur in the small institution is its greatest claim to consideration.

But the departmental method for the supervision of students in large institutions may be made to resemble closely the college method in its best phases, while the head of a large department deals with problems, so far as individual students are concerned, much the same as the president of the small college. To speak concretely, we deal at Purdue in the department of pure mathematics at all times with one thousand to eleven hundred students. For this work we have eleven active instructors, every one handling approximately one hundred men. Our classes in various courses are for two, three, four, and five hours a week and a class once organized continues for the year under one instructor. The maximum number in each class is set at twenty-five, the minimum at eighteen or twenty and it is seldom that these limits are overstepped in either direction. To secure a position on the staff a man must be a good, well-trained mathematician, — preferably, of course, an original worker, — and a good teacher. To be a good teacher

animated by the right spirit is absolutely necessary in order to hold a position on the force.

If we must choose as sometimes we must, we prefer a fine teacher and an average but sound mathematician to a brilliant mathematician and a poor teacher.

The department insists that the instructor shall do more than impart the lesson. He shall study his pupils; shall acquaint himself with their history from the records, shall make an individual and sympathetic study of the personality of every one of his students; shall know their strength and weakness, and find reasons for both; he shall make his students understand that they are watched and studied, that he is glad to answer reasonable questions, that he tries to relieve their troubles and to help them overcome their difficulties. He sets aside a portion of each day when they can consult him and he can advise and encourage them. In short he shall be teacher, leader, counselor and friend, and shall know his men so well that at any time he can give the head of the department a fairly accurate analysis of their social and intellectual qualities.

This element of work and attention directed to the individual does in the departments in a specific way nearly the same thing as that advocated in a more general way by the writer of the paper. It has the added advantage of being a natural, every day outgrowth of the relations of teacher and student without the introduction of more machinery. These are some of the ideals towards which we at Purdue are consciously working. Of our success in realizing them we make no claims but we invite investigation.

PRINCIPAL CRUSINBERRY:

While the papers read this morning have had reference wholly to the supervision of first year college students and not at all to high school students, yet there has been so much heart in the things said that there was much of good in the papers for the high school principal.

In our experience in the West High School, Des Moines, we are led to feel that the gap between the 8th and 9th grades is as great and as difficult to bridge as between the 12th grade and the first year in college.

My own work in this line has been with college freshmen until within the last six years, and I think I see the difficulties in both cases very clearly.

One plan for supervision of first year high school students which we have talked in our high school but have not yet put into execution, is to keep first year students in a separate building with separate and special supervision.

We reach our individual pupils through their first hour teachers, to whom the pupils' failure in any work is reported. The first hour teacher talks with the pupil and if there is no improvement, he is sent to the principal. Often these talks set the pupil right and he is saved. If not, the case is reported to his parents and their coöperation asked.

We have found large reward in reporting to parents the absence of all pupils who have been out more than three days.

In reporting these cases, we use both the telephone and the mails. In many instances, in talking to the mother over the phone, she is sure her boy is in school,

and the letter home brings surprised parents to the school.

The fraternities instead of being a help in supervision as in college, are on the contrary, a hindrance in the high school.

DEAN SNOW:

I am so heartily in accord with the general treatment which has been given to this subject by other speakers, and especially by Dean Clark, that I have very little to add to this discussion. It seems to me, however, that one or two points need to be further emphasized.

As the discussion at this stage naturally takes the shape of an experience meeting, perhaps I may be pardoned if I simply state what is the practice in the office of the Dean of the College in Washington University in regard to supervision of members of the Freshman Class. We realize that the first few weeks of the Freshman year are in reality the critical weeks of the year to one who has just come from the restrictions of the secondary school. It is one of our rules, in both the College and the School of Engineering and Architecture, that at the end of each period of four weeks after the beginning of the term, reports shall be made to the Deans which contain the record of scholarship for the preceding month. It is my custom to look over the College reports with very great care. The record of the first month is necessarily somewhat indefinite, but enough can be gained, even in the absence of a quiz or written work, to give to one who is accustomed to such things an idea of how the work is beginning.

If I find that in any subject or subjects the stu-

dent has a low record during the first month, as soon as possible I have him come to my office and talk the matter over. I try to find out whether this low record comes from indifference to the work, from a want of proper preparation, from idleness or neglect, or from any of many reasons for such failure.

What has been said about the difficulty of the freshman adjusting himself at once to the new surroundings and new conditions of college life is absolutely true. I find very often, as the result of such examination of the record of the first month's work, that the student seems not yet to have "found himself," as one may say. I am often reminded of that story of Kipling's of "the ship that found itself," and these freshmen are often during this first month floundering about in a sea of uncertainty, not knowing how to steer their course.

Whatever may be the reason for the low record which comes to my notice, the matter is discussed fully and frankly by me with the student. The official relation is forgotten as much as possible. The endeavor is made to have him understand that he is being advised and guided by a friend who is almost in the relation of an elder brother; that the purpose of this meeting is not so much for reproof as for guidance and for setting him on the right way.

It seems to me that it is exceedingly important that this matter should be attended to very early in the year. I think it is a misfortune for the student and for the institution to allow the freshman to go on until Thanksgiving or Christmas without any official notice being taken of his work, and without any friendly hand by him for guidance and support. It is my belief that many a youth is by this anticipation

of possible trouble guided safely into a reasonable course, instead of being later in the year turned out among the wreckage which comes from complete disaster.

At the end of the second month, if the report still continues unsatisfactory, further admonition and advice follow, and here I wish to mention a second point which seems to me to be of great importance. I believe that fairness and justice to the students and to the parents make it an obligation upon the University authorities to keep the parents thoroughly informed upon the work which is going on in the college. Especially is this true during these earlier weeks of the Freshman year. It is my custom, therefore, if at the end of two months the work is still unsatisfactory, to communicate with the father or mother and to ask for an interview. At this interview, I always lay the matter fully and frankly before the parent and endeavor to secure his coöperation. Sometimes such coöperation is difficult to obtain, not so much from the want of good will, as from the inability on the part of the father at this time in the boy's career to exert over him sufficient influence. In this case, the trouble goes farther back than anything over which the College can obtain control. Such coöperation may, nevertheless, be had in most cases, and at any rate, the Dean of the College is sure that in thus acting he has done his full duty, and he has made it easier for the boy, for the parent, and for himself. He has also by this course made any subsequent action that may have to be taken fully understood and received without demur.

I believe that a large majority of students, who without such care and supervision go to pieces dur-

ing the freshman year, may be saved. In some cases all of this will be fruitless; that is to be expected; but the college official who neglects every means to use such influence as he may have, both as an official and as a kind and sympathetic friend, is not living up to the full measure of his duty.

These two things, therefore, besides all that has been so well said by others, seem to me worth special attention:

First, a careful watch upon the character of the work during the *early* weeks of the year, with an understanding of the reasons for any failure, and constant encouragement which may lead to better results.

Secondly, an attempt to secure coöperation with parents, who have a right to know all that is going on which concerns their son's welfare.

PROFESSOR FISK:

The importance of Freshman Supervision with a view to affording the timely stimulus that may save from failure those who without such personal attention are likely to fall out of their courses in high-school or college has been justly emphasized.

It is perhaps not less important that the work of every Freshman should be scrutinized with a view to applying the proper stimulus that will incite each one to do his best. It is not less to be regretted that a student having the possibilities of an "A" grade should fall below his best, or a "B" student fall into "C" grade, than that a "C" student should fall out altogether.

The value lost to society when the pupil of first-class ability becomes content to do mediocre work

is greater than the loss sustained when a feeble man fails and disappears.

Both ends of a class, the top and the bottom, may profitably be diligently regarded by a class officer; the best, and those who are advancing to higher grades of work, to be complimented and encouraged, the weakest to be admonished and directed.

When half of a class, the best and the weakest, are thus individually addressed, it has been found that others of the intermediate degrees of success are affected favorably, though indirectly, as they become aware of messages and attentions received by others.

Formal letters to Freshmen or to their parents at unexpected times, expressing gratification in terms of discriminating compliment, and in other cases letters of regret, with hopeful suggestions, have been found very serviceable in arousing the most wholesome kind of emulation; namely, the ambition of the pupil to surpass himself.

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The Auditing Committee reported as follows:

The Auditing Committee have examined all accounts and vouchers of the Treasurer of the Association and beg to state that they find all accounts and vouchers correct and a balance in the treasury of $145.50.

MARSHALL S. SNOW,
JOHN R. KIRK,
GEO. W. BENTON.

On motion the report was adopted.

The committee on time and place of the next meeting reported as follows:

We recommend that the city of Chicago be selected as the place for the next meeting and that the date be the last Friday and Saturday of March, 1907, unless the Executive Committee find it important to change the time. We also recommend that the special place for holding the sessions in the city of Chicago be left to the judgment of the Executive Committee.

HENRY F. KING,
A. F. NIGHTINGALE,
GEORGE B. AITON.

On motion the report was adopted.

The Committee on Nominations recommended the election of the following officers for 1906-7.

FOR OFFICERS FOR THE YEAR 1906-07.

PRESIDENT:

Principal E. L. Harris,
Central High School, Cleveland.

SECRETARY:

Dean T. A. Clark,
University of Illinois.

TREASURER:

Principal J. E. Armstrong,
Englewood High School, Chicago.

VICE-PRESIDENTS:

WISCONSIN —

President R. C. Hughes,
Ripon College.

Principal Edw. Rissman,
South Division High School, Milwaukee.

MICHIGAN —

President E. E. Lancaster,
Olivet College.

Principal A. J. Volland,
Central High School, Grand Rapids.

OHIO —

President Herbert Welch,
Ohio Wesleyan University.

Principal W. M. Townsend,
Central High School, Columbus.

IOWA —

President H. M. Bell,
Drake University.

Principal S. L. Thomas,
Council Bluffs High School.

ILLINOIS —

Acting President H. P. Judson,
University of Chicago.

Principal H. V. Church,
Clyde High School.

MISSOURI —

President L. M. McAfee,
Park College.

Principal W. J. S. Bryan,
Central High School, St. Louis.

NEBRASKA —

Professor T. M. Hodgeman,
University of Nebraska.

INDIANA —

President W. L. Bryan,
Indiana University.

Reverend W. O. Maloney,
University of Notre Dame.

KANSAS —

Professor W. H. Johnson,
University of Kansas.

Principal W. A. Davidson,
Topeka High School.

MINNESOTA —

George B. Aiton,
State Inspector of High Schools.

Principal Farnsworth,
Cleveland High School, St. Paul.

COLORADO —

President J. H. Baker,
University of Colorado.

Principal W. H. Smiley,
Denver High School.

OKLAHOMA —

President David R. Boyd,
State University.

Supt. of Instruction L. W. Baxter,
Guthrie.

SOUTH DAKOTA —

State Supt. of Instruction M. M. Ramer,
Pierre.

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MEMBERS OF EXECUTIVE COMMITTEE:

Principal F. L. Bliss, Detroit University School, Detroit.

Professor J. V. Denney, Ohio State University.

President E. J. James, University of Illinois.

Principal Geo. W. Benton, Shortridge High School, Indianapolis.

And the President, the Secretary and the Treasurer *ex-officio*.

On motion the report was adopted and the persons nominated were declared elected.

A vote of thanks was tendered to the retiring secretary and to the treasurer of the Association.

The President announced the appointment of the following as members of the Commission for 1906-1909: Acting President H. P. Judson, University of Chicago; Professor E. O. Holland, Indiana University; Superintendent A. F. Nightingale, Chicago; Principal Geo. W. Benton, Indianapolis.

Director Carman moved, in accordance with the resolution of the National Association of State Universities, quoted in President MacLean's address, that the North Central Association elect a delegate to the joint committee proposed in the resolution (see page — of this volume). The motion was adopted.

Acting President Judson nominated President Geo. E. MacLean as such delegate and, the question being put by the Secretary, President MacLean was declared elected.

President MacLean then introduced President-elect Harris.

On motion the Association adjourned.

J. V. DENNEY,
*Secretary.*

# LIST OF MEMBERS.

## INSTITUTIONS.

(c. m. means charter member.)

### OHIO.

Ohio State University, c. m., Columbus, President W. O. Thompson.
Western Reserve University, c. m., Cleveland, President Chas. F. Thwing.
Oberlin College, c. m., Oberlin, President H. C. King.
Ohio Wesleyan University, c. m., Delaware, President Herbert Welsh.
Denison University, '99, Granville, President Emory W. Hunt.
University of Cincinnati, '99, Cincinnati, President C. W. Dabney.
Miami University, '04, Oxford, President Guy P. Benton.
Central High School, c. m., Cleveland, Principal Edward L. Harris.
Hughes High School, '96, Cincinnati, Principal E. W. Coy.
High School, '96, Toledo, Principal W. B. Guitteau.
Walnut Hills High School, '99, Cincinnati, Principal W. Taylor Harris.
Woodward High School, '99, Cincinnati, Principal Geo. W. Harper.
West High School, '00, Cleveland, Principal Theo. H. Johnston.
East High School, '02, Columbus, Principal F. B. Pearson.
University School, '02, Cleveland, Principal George D. Pettee.
South High School, '02, Cleveland, Principal G. A. Ruetenik.
Lincoln High School, '02, Cleveland, Principal J. W. McLane.
East High School, '02, Cleveland, Principal B. U. Rannels.
Rayen High School, '03, Youngstown, Principal W. L. Griswold.
North High School, '05, Columbus, Principal C. D. Everett.
Glenville High School, '06, Cleveland, Principal H. S. Cully.
Central High School, '06, Columbus, Principal W. M. Townsend.
South High School, '06, Columbus, Principal C. S. Barrett.

### MICHIGAN.

University of Michigan, c. m., Ann Arbor, President Jas. B. Angell.
Albion College, c. m., Albion, President Samuel Dickie.
Central High School, c. m., Grand Rapids, Principal A. J. Volland.
Michigan Military Academy, c. m., Orchard Lake, Principal L. C. Hull.
High School, '95, Kalamazoo, Superintendent S. O. Hartwell.

East Side High School, '95, Saginaw, Superintendent E. C. Warriner.
Detroit University School, '00, Detroit, Principal Frederick L. Bliss.
Olivet College, '06, Olivet, President E. G. Lancaster.
Michigan Seminary, '06, Kalamazoo, President Gray.
High School, '06, Charlotte, Superintendent M. R. Parmelee.

## INDIANA.

Indiana University, c. m., Bloomington, President W. L. Bryan.
Wabash College, c. m., Crawfordsville, President W. P. Kane.
High School, c. m., LaPorte, Superintendent J. W. Knight.
High School, '96, Fort Wayne, Principal C. F. Lane.
Girls' Classical School, '00, Indianapolis, Principal May W. Sewall.
High School, '01, LaFayette, Superintendent E. Ayers.
Howe School, '04, Lima, Rector T. H. McKenzie.
Shortridge High School, c. m., Indianapolis, Principal G. W. Benton.
University of Notre Dame, '06, President John Cavanaugh.

## ILLINOIS.

University of Illinois, c. m., Champaign, President E. J. James.
University of Chicago, c. m., Chicago, President H. P. Judson.
Northwestern University, c. m., Evanston, President T. F. Holgate.
Lake Forest College, c. m., Lake Forest, President R. D. Harlan.
Knox College, '96, Galesburg, President Thomas McClelland.
High School, c. m., Evanston, Principal Henry L. Boltwood.
Evanston Academy of Northwestern University, c. m., Principal A. H. Wilde.
Morgan Park Academy, c. m., Morgan Park, Dean W. J. Chase.
Manual Training School, c. m., Chicago, Director H. H. Belfield.
Harvard School, c. m., Chicago, Principal John J. Schobinger.
High School, c. m., Peoria.
Lake Forest School, Lake Forest, Head Master J. C. Sloan.
West Division High School, '96, Chicago, Principal C. M. Clayberg.
Hyde Park High School, '95, Chicago, Principal C. W. French.
Lake View High School, '96, Chicago, Principal B. F. Buck.
Englewood High School, '96, Chicago, Principal J. E. Armstrong.
Ottawa Tp. High School, '96, Ottawa, Principal J. O. Leslie.
Lyons Tp. High School, '96, La Grange, Principal Cole.
Lewis Institute, '95, Chicago, Director G. N. Carman.
Streator Tp. High School, '97, Streator, Principal ———.
Bradley Polytechnic Institute, '97, Peoria, Director T. C. Burgess.
High School, '98, Elgin, Principal.
Lake High School, '99 Chicago Principal Edward F. Stearns.
Marshall High School, '99, Chicago, Principal Louis J. Block.

Kewanee High School, '04, Kewanee, Principal J. B. Cleveland.
LaSalle and Peru Tp. High School, '05, Principal T. J. McCormack.
East Side High School, '05, Aurora, Principal C. L. Phelps.
Township High School, '05, Joliet, Principal J. Stanley Brown.
J. Sterling Morton High School, '05, Clyde, Principal H. O. Church.
Township High School, '06, Sterling, Principal E. T. Austin.
Rockford College, '06, Rockford, President Julia Gulliver.
High School of the University of Chicago, '06, Principal W. B. Owen.

## WISCONSIN.

University of Wisconsin, c. m., Madison, President Charles R. Van Hise.
Beloit College, c. m., Beloit, President Edward D. Eaton.
Ripon College, '04, President Richard C. Hughes.
Milwaukee-Downer College, '97, Milwaukee, President Ellen C. Sabin.
Milwaukee Academy, '97, Milwaukee, Principal J. H. Pratt.
Racine High School, '05, Racine, Principal E. W. Blackhurst.
West Division High School, '04, Milwaukee, Principal C. E. McLenegan.
North Division High School, '04, Milwaukee, Principal R. E. Krug.
Lawrence University, '05, Appleton, President Samuel Plantz.
South Division High School, '06, Milwaukee, Principal E. Rissman.
Wayland Academy, '06, Beaver Dam, Principal E. P. Brown.

## MINNESOTA.

Humboldt High School, St. Paul, Principal H. S. Baker.
Central High School, '04, St. Paul, Principal E. V. Robinson.
Cleveland High School, St. Paul, Principal S. A. Farnsworth.
Carlton College, Northfield, President W. H. Sallmon.

## IOWA.

State University of Iowa, c. m., Iowa City, President Geo. E. MacLean.
Cornell College, c. m., Mt. Vernon, President Wm. F. King.
State Normal School, c. m., Cedar Falls, President D. S. Wright.
Iowa College, '95, Grinnell, President J. H. T. Main.
Drake University, '06, Des Moines, President H. M. Ball.
High School, '06, Council Bluffs, Principal S. L. Thomas.
High School, '06, Dubuque, Principal F. L. Smart.
West High School, '06, Des Moines, Principal W. A. Crusinberry.

## MISSOURI.

University of Missouri, c. m., Columbia, President Richard H. Jesse.
Washington University, c. m., St. Louis, Chancellor Winfield S. Chaplin.
Drury College, '98, Springfield, President Homer T. Fuller.
Missouri Valley College, '98, Marshall, President Wm. H. Black.
High School, '96, St. Louis, Principal W. J. S. Bryan.
Westminster College, '00, Fulton, President David R. Kerr.
Mexico High School, Mexico, Superintendent D. A. McMillan.
Manual Training High School, '00, Kansas City.
Mary Institute, '00, St. Louis, Principal E. H. Sears.
Kirkwood High School, '00, Kirkwood, Superintendent R. G. Kinkead.
Park College, '02, Parkvillle, President Lowell M. McAfee.
Academy of Drury College, '04, Springfield, Principal C. P. Howland.
Wm. McKinley High School, '05, St. Louis, Principal G. B. Morrison.

## NEBRASKA.

University of Nebraska, '96, Lincoln, President E. Benj. Andrews.

## KANSAS.

University of Kansas, '96, Lawrence, Chancellor Frank Strong.
Washburn College, '06, Topeka, President Norman Plass.

## COLORADO.

University of Colorado, '96, Boulder, President Jas. H. Baker.
Colorado College, '96, Colorado Springs, President W. F. Slocum.
High School No. 1, '96, Denver, President Wm. H. Smiley.
The Miss Wolcott School, '06, Denver.

## OKLAHOMA.

University of Oklahoma, '01, Norman, President David R. Boyd.

## SOUTH DAKOTA.

High School, Yankton, Principal R. C. Shellenbarger.

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## INDIVIDUAL MEMBERS.

### OHIO.

Charles S. Howe, '02, President of Case School of Applied Science, Cleveland.
Jos. V. Denney, '03, Dean of the College of Arts, Philosophy and Science, Ohio State University, Columbus.

W. W. Boyd, '03, High School Visitor, Ohio State University, Columbus.

D. R. Major, '04, Professor in Ohio State University, Columbus.

G. M. Jones, '05, Secretary of Oberlin College, Oberlin, Ohio.

F. C. Hicks, '06, Professor in The University of Cincinnati.

MICHIGAN.

Fred N. Scott, '98, Professor in the University of Michigan, Ann Arbor.

L. H. Jones, '95, President of the State Normal School, Ypsilanti.

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# CONSTITUTION OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

AS AMENDED AT THE NINTH ANNUAL MEETING, MARCH 26, 1904.

## ARTICLE I.

### NAME.

The name of this Association shall be the North Central Association of Colleges and Secondary Schools.

## ARTICLE II.

### OBJECT.

The object of the Association shall be to establish closer relations between the colleges and secondary schools of the North Central States.

## ARTICLE III.

### MEMBERSHIP.

Section 1. — The members of the Association shall consist of the following two classes: First, colleges and universities, and secondary schools. Secondly, individuals identified with educational work within the limits of the Association.

Sec. 2. — Election to membership shall require a two-thirds vote of the members present at any meeting, and shall be made only upon the nomination of the Executive Committee.

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Sec. 3. — The Treasurer shall collect and hold all moneys of the Association and pay out the same upon the written order of the President.

Sec. 4. — The Executive Committee shall make all nominations for membership in the Association, fix the time of all meetings not otherwise provided for, prepare programmes and act for the Association when it is not in session. All the acts of the Executive Committee shall be subject to the approval of the Association.

## ARTICLE VII.
## MEETINGS.

There shall be an annual meeting of the Association and such special meetings as the Association may appoint.

## ARTICLE VIII.
## MEMBERSHIP FEE.

To meet expenses, an annual fee of $10 shall be paid by each university, $5 by each college and $3 each by all other members, and each member shall have one vote.

## ARTICLE IX.
## QUORUM.

One-fourth of the members of the Association shall constitute a quorum.

## ARTICLE X.
## AMENDMENTS.

This constitution may be amended by a three-fourths vote at any regular meeting, provided that a printed notice of the proposed amendment be sent to each member two weeks before said meeting.

## REGISTRATION.

AITON, Geo. B., State Inspector, Minneapolis, Minn.
ALBERT, C. J., 378 Wabash Avenue, Chicago.
AMBROSE, Thomas, 521 Wabash Avenue, Chicago.
ARMSTRONG, J. E., Principal, Englewood High, Chicago.
AUSTIN, E. T., Principal, Tp. High, Sterling, Ill.
BACON, G. A., 378 Wabash Avenue, Chicago, Ill.
BAKER, James H., President University of Colorado, Boulder.
BARDWELL, C. M., Superintendent, Aurora, Ill.
BARRETT, C. S., Principal, South High, Columbus, Ohio.
BAXTER, L. W., State Superintendent, Guthrie, Okla.
BELFIELD, H. H., Principal, University High, Chicago, Ill.
BELL, H. M., President, Drake University, Des Moines, Ia.
BEMAN, W. W., Professor, University, Ann Arbor, Mich.
BENTON, E. J., Professor, Western Reserve, Cleveland, Ohio.
BENTON, Geo. W., Principal, Shortridge High, Indianapolis, Ind.
BETTS, Geo. H., Professor, Cornell College, Mt. Vernon, Ia.
BILLINGS, Frank, Dean, Rush Medical, Chicago.
BIRGE, Edw. A., Dean, University of Wisconsin, Madison.
BLISS, F. L., Principal, University School, Detroit, Mich.
BLOCK, L. J., Principal, Marshall High, Chicago, Ill.
BOYD, D. R., President, University, Norman, Oklahoma.
BOYD, W. W., Inspector, Ohio State University, Columbus.
BOYER, C. J., Chicago.
BRANDENBURG, W. A., Superintendent, Mason City, Iowa.
BROWN, H. E., Principal, Rock Island, Ill.
BRYAN, W. J. S., Principal, St. Louis, Mo.
BRYAN, Mrs. W. J. S., 3746 Windsor Place, St. Louis, Mo.
BURKE, R. H., Chicago.
BUSWELL, Clara L., High School, Polo, Ill.
CARMAN, G. N., Director, Lewis Institute, Chicago, Ill.
CARRIER, W. O., President, Carroll College, Waukesha, Wis.
CHAPLIN, W. S., President, Washington University, St. Louis, Mo.
CHASE, W. J., Dean, Academy, Morgan Park, Ill.
CHURCH, H. V., High School, Berwyn, Ill.
CLARK, B. F., Steinway Hall, Chicago, Ill.
CLARK, T. A., Dean, University, Urbana, Ill.
CLEVENGER, C. H., University, Chicago, Ill.
COFFEEN, E. L., Superintendent, Marshalltown, Iowa.
COLLIE, G. L., Dean, Beloit College, Beloit, Wis.

# LIST OF MEMBERS.

## INSTITUTIONS.

(c. m. means charter member.)

### OHIO.

Ohio State University, c. m., Columbus, President W. O. Thompson.
Western Reserve University, c. m., Cleveland, President Chas. F. Thwing.
Oberlin College, c. m., Oberlin, President H. C. King.
Ohio Wesleyan University, c. m., Delaware, President Herbert Welsh.
Denison University, '99, Granville, President Emory W. Hunt.
University of Cincinnati, '99, Cincinnati, President C. W. Dabney.
Miami University, '04, Oxford, President Guy P. Benton.
Central High School, c. m., Cleveland, Principal Edward L. Harris.
Hughes High School, '96, Cincinnati, Principal E. W. Coy.
High School, '96, Toledo, Principal W. B. Guitteau.
Walnut Hills High School, '99, Cincinnati, Principal W. Taylor Harris.
Woodward High School, '99, Cincinnati, Principal Geo. W. Harper.
West High School, '00, Cleveland, Principal Theo. H. Johnston.
East High School, '02, Columbus, Principal F. B. Pearson.
University School, '02, Cleveland, Principal George D. Pettee.
South High School, '02, Cleveland, Principal G. A. Ruetenik.
Lincoln High School, '02, Cleveland, Principal J. W. McLane.
East High School, '02, Cleveland, Principal B. U. Rannels.
Rayen High School, '03, Youngstown, Principal W. L. Griswold.
North High School, '05, Columbus, Principal C. D. Everett.
Glenville High School, '06, Cleveland, Principal H. S. Cully.
Central High School, '06, Columbus, Principal W. M. Townsend.
South High School, '06, Columbus, Principal C. S. Barrett.

### MICHIGAN.

University of Michigan, c. m., Ann Arbor, President Jas. B. Angell.
Albion College, c. m., Albion, President Samuel Dickie.
Central High School, c. m., Grand Rapids, Principal A. J. Volland.
Michigan Military Academy, c. m., Orchard Lake, Principal L. C. Hull.
High School, '95, Kalamazoo, Superintendent S. O. Hartwell.

East Side High School, '95, Saginaw, Superintendent E. C. Warriner.
Detroit University School, '00, Detroit, Principal Frederick L. Bliss.
Olivet College, '06, Olivet, President E. G. Lancaster.
Michigan Seminary, '06, Kalamazoo, President Gray.
High School, '06, Charlotte, Superintendent M. R. Parmelee.

## INDIANA.

Indiana University, c. m., Bloomington, President W. L. Bryan.
Wabash College, c. m., Crawfordsville, President W. P. Kane.
High School, c. m., LaPorte, Superintendent J. W. Knight.
High School, '96, Fort Wayne, Principal C. F. Lane.
Girls' Classical School, '00, Indianapolis, Principal May W. Sewall.
High School, '01, LaFayette, Superintendent E. Ayers.
Howe School, '04, Lima, Rector T. H. McKenzie.
Shortridge High School, c. m., Indianapolis, Principal G. W. Benton.
University of Notre Dame, '06, President John Cavanaugh.

## ILLINOIS.

University of Illinois, c. m., Champaign, President E. J. James.
University of Chicago, c. m., Chicago, President H. P. Judson.
Northwestern University, c. m., Evanston, President T. F. Holgate.
Lake Forest College, c. m., Lake Forest, President R. D. Harlan.
Knox College, '96, Galesburg, President Thomas McClelland.
High School, c. m., Evanston, Principal Henry L. Boltwood.
Evanston Academy of Northwestern University, c. m., Principal A. H. Wilde.
Morgan Park Academy, c. m., Morgan Park, Dean W. J. Chase.
Manual Training School, c. m., Chicago, Director H. H. Belfield.
Harvard School, c. m., Chicago, Principal John J. Schobinger.
High School, c. m., Peoria.
Lake Forest School, Lake Forest, Head Master J. C. Sloan.
West Division High School, '96, Chicago, Principal C. M. Clayberg.
Hyde Park High School, '95, Chicago, Principal C. W. French.
Lake View High School, '96, Chicago, Principal B. F. Buck.
Englewood High School, '96, Chicago, Principal J. E. Armstrong.
Ottawa Tp. High School, '96, Ottawa, Principal J. O. Leslie.
Lyons Tp. High School, '96, La Grange, Principal Cole.
Lewis Institute, '95, Chicago, Director G. N. Carman.
Streator Tp. High School, '97, Streator, Principal ———.
Bradley Polytechnic Institute, '97, Peoria, Director T. C. Burgess.
High School, '98, Elgin, Principal.
Lake High School, '99 Chicago Principal Edward F. Stearns.
Marshall High School, '99, Chicago, Principal Louis J. Block.

Kewanee High School, '04, Kewanee, Principal J. B. Cleveland.
LaSalle and Peru Tp. High School, '05, Principal T. J. McCormack.
East Side High School, '05, Aurora, Principal C. L. Phelps.
Township High School, '05, Joliet, Principal J. Stanley Brown.
J. Sterling Morton High School, '05, Clyde, Principal H. O. Church.
Township High School, '06, Sterling, Principal E. T. Austin.
Rockford College, '06, Rockford, President Julia Gulliver.
High School of the University of Chicago, '06, Principal W. B. Owen.

## WISCONSIN.

University of Wisconsin, c. m., Madison, President Charles R. Van Hise.
Beloit College, c. m., Beloit, President Edward D. Eaton.
Ripon College, '04, President Richard C. Hughes.
Milwaukee-Downer College, '97, Milwaukee, President Ellen C. Sabin.
Milwaukee Academy, '97, Milwaukee, Principal J. H. Pratt.
Racine High School, '05, Racine, Principal E. W. Blackhurst.
West Division High School, '04, Milwaukee, Principal C. E. McLenegan.
North Division High School, '04, Milwaukee, Principal R. E. Krug.
Lawrence University, '05, Appleton, President Samuel Plantz.
South Division High School, '06, Milwaukee, Principal E. Rissman.
Wayland Academy, '06, Beaver Dam, Principal E. P. Brown.

## MINNESOTA.

Humboldt High School, St. Paul, Principal H. S. Baker.
Central High School, '04, St. Paul, Principal E. V. Robinson.
Cleveland High School, St. Paul, Principal S. A. Farnsworth.
Carlton College, Northfield, President W. H. Sallmon.

## IOWA.

State University of Iowa, c. m., Iowa City, President Geo. E. MacLean.
Cornell College, c. m., Mt. Vernon, President Wm. F. King.
State Normal School, c. m., Cedar Falls, President D. S. Wright.
Iowa College, '95, Grinnell, President J. H. T. Main.
Drake University, '06, Des Moines, President H. M. Ball.
High School, '06, Council Bluffs, Principal S. L. Thomas.
High School, '06, Dubuque, Principal F. L. Smart.
West High School, '06, Des Moines, Principal W. A. Crusinberry.

## MISSOURI.

University of Missouri, c. m., Columbia, President Richard H. Jesse.
Washington University, c. m., St. Louis, Chancellor Winfield S. Chaplin.
Drury College, '98, Springfield, President Homer T. Fuller.
Missouri Valley College, '98, Marshall, President Wm. H. Black.
High School, '96, St. Louis, Principal W. J. S. Bryan.
Westminster College, '00, Fulton, President David R. Kerr.
Mexico High School, Mexico, Superintendent D. A. McMillan.
Manual Training High School, '00, Kansas City.
Mary Institute, '00, St. Louis, Principal E. H. Sears.
Kirkwood High School, '00, Kirkwood, Superintendent R. G. Kinkead.
Park College, '02, Parkvillle, President Lowell M. McAfee.
Academy of Drury College, '04, Springfield, Principal C. P. Howland.
Wm. McKinley High School, '05, St. Louis, Principal G. B. Morrison.

## NEBRASKA.

University of Nebraska, '96, Lincoln, President E. Benj. Andrews.

## KANSAS.

University of Kansas, '96, Lawrence, Chancellor Frank Strong.
Washburn College, '06, Topeka, President Norman Plass.

## COLORADO.

University of Colorado, '96, Boulder, President Jas. H. Baker.
Colorado College, '96, Colorado Springs, President W. F. Slocum.
High School No. 1, '96, Denver, President Wm. H. Smiley.
The Miss Wolcott School, '06, Denver.

## OKLAHOMA.

University of Oklahoma, '01, Norman, President David R. Boyd.

## SOUTH DAKOTA.

High School, Yankton, Principal R. C. Shellenbarger.

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## INDIVIDUAL MEMBERS.

### OHIO.

Charles S. Howe, '02, President of Case School of Applied Science, Cleveland.
Jos. V. Denney, '03, Dean of the College of Arts, Philosophy and Science, Ohio State University, Columbus.

W. W. Boyd, '03, High School Visitor, Ohio State University, Columbus.

D. R. Major, '04, Professor in Ohio State University, Columbus.

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Section 1. — The President, or in his absence one of the Vice-Presidents selected by the Executive Committee, shall preside at the meetings of the Association and shall sign all orders upon the Treasurer.

Sec. 2. — The Secretary shall keep a record of the proceedings of the Association and attend to all necessary correspondence and printing.

system of the mother country, the first schools of this character were named Grammar Schools. Boston, in 1635, started her Latin Grammar School, afterward known as the Boston Latin School. In 1641, New Haven followed; in 1642, Hartford, and in 1659 New York established Grammar Schools. At about this time the well-known William Penn Charter School was founded in Philadelphia. Many other schools of like character were established in the colonies.

These schools were in no sense democratic. They had little or no connection with Elementary Schools. A tuition fee was usually charged; very little, if any, assistance, at first, was given from public taxation. These schools were for a class, largely for those who wished to enter professional life, and they were for boys only. They were preparatory schools, and the requirements of the colleges, at that time, influenced and dictated the course of study. It will be interesting to notice the requirements of Harvard, at the middle of the seventeenth century. "When scholars had so far profited at the Grammar Schools that they could read any classical author into English, and readily make and speak true Latin and write it in verse as well as in prose; and perfectly decline the paradigms of nouns and verbs in the Greek tongue, they were judged capable of admission in Harvard College." Many years later, the requirements for Princeton were, the ability "of composing grammatical Latin, translating Virgil, Cicero's Orations and the four Evangelists in Greek" and the understanding of the "principal rules of Vulgar Arithmetic."

The second period in the development of the High School may be called the First National Period, that is, from the adoption of our national constitution to about the middle of the nineteenth century. The influence of the state in educational matters had very much increased; while, on the other hand, the church was seeking to continue its hold on the educational work. This led to a separation of the two influences. It became the strongest period of the academy.

The Phillips' Academies, so well known during all the years since, were established in 1780-81. In 1784 the University of the State of New York was founded, and into its care was entrusted the entire college and secondary work of the state. In our own district—the North Central—in 1817, the territory of Michigan established its University and gave that institution power "to establish colleges, academies," etc., through the territory of Michigan. The character of the academies differed greatly from that of the grammar schools. They were not so distinctly for a class, for those seeking a profession, nor, in most cases, were they so nearly college preparatory schools. Their courses were broader, more enriched perhaps. Besides Latin and Greek, English, Elementary Science, and Modern Languages were introduced. They also became coeducational in many cases, although there were academies for boys, and at the same time there were also academies, or seminaries, for the girls.

During all this period the feeling for state control of secondary education was increasing. It finally came to a popular demand that the state assume such control; that the high schools be for

the people, and that the work of the high school be correlated with that of the elementary school. Boston was again among the first to act. In 1821 she started the English Classical School, afterward known as the English High School. It offered a three years course only, and was in no sense a college preparatory school. Philadelphia established its Central High School in 1838, Providence in 1842 and Cleveland its Central High in 1846. In the light of present experience it is amusing to note the following which I read recently in the early records of the last-named school, written by the the first principal, in 1847: "Fourteen girls were admitted this term. They do not come up to the standard and I doubt the policy of admitting girls at all into this department."

The result of state control and state support was not accomplished at once or without a struggle from the opponents of the system. These schools were then doubtless considered as "frills and fads." It was claimed that the state had no right to expend the public money for the favored few; that the high schools were not common or public schools; that the only duty of the state was to the elementary schools; that the higher work should be left to the private academy. It was a conflict between the two influences that had been drawing apart during this period. The question was finally brought to a test before the Supreme Court of Michigan. The decision not only settled the case in that state but had a powerful influence on the other states, as the decision of such able jurists would have. The decision stated that, "Neither in our state policy, in our constitution, nor in our laws do

we find the primary school districts restricted in the branches of knowledge which their officers may cause to be taught, or the grade of instruction that may be given, if their voters consent, in regular form, to bear the expenses and raise the taxes for the purpose."

The advance made since this decision is seen in the enactments of the legislatures of some of the states, whereby a town or township, if it does not maintain a high school, must bear the expense of the tuition for any pupil who desires to attend at the nearest high school or at one he may select.

In this historical review of the development of the secondary school I am greatly indebted to the excellent monograph on Secondary Education in the United States, by Professor Elmer E. Brown.

The third period is the period of today. The public high school is distinctly an institution of the state; in no sense can it justly be considered a college preparatory school. Academies still exist; private schools and academies are still being founded, and their province is largely, it would seem to me, to prepare for college. They make a specialty of preparatory work. Formerly the high schools, when known as the grammar schools, were more closely associated with the college; today they are more closely associated with the elementary school. They are, perhaps, the connecting link in the state system of instruction between the elementary school and the State University, with the stronger attachment and duty towards the elementary school.

The people of the states of the North Central District have decidedly indicated their opinion of

this system in establishing strong state universities. Although these universities at first examined all applicants from high schools, they nevertheless were the first colleges in adopting the accrediting system. To the best of my knowledge, the University of Michigan was the originator of the accrediting system in Michigan as early as 1871. Michigan also has the honor of initiating in 1895 the movement for the formation of the North Central Association of Colleges and Secondary Schools—and thus indirectly of the accrediting system of the entire district. It is true that the New England Association had been formed in 1885 from the Secondary Association of Massachusetts; the Middle States and Maryland Association in 1892 on the suggestion of the College Association of Pennsylvania. Later in the same year, 1895, the Southern Association was formed. Much has been accomplished by these strong individual associations, but much more may be accomplished by united action.

The present status of the public High School is indicated by the history of its development. Its province, its duty, seems plain to your speaker. While I have made the statement that the High School is not a college preparatory school, I do not wish it understood that I believe that the student should not be prepared for college. On the contrary, I believe that every graduate of a first class high school should find an opportunity in some department of a higher institution, if he wishes to continue his studies. It has often been stated and accepted without question that, "Whatever best prepares one for college prepares him for life." If the converse were given and accepted, every student

*would* find such an opportunity; the manual student would find a place in the technical school, the commercial student a place in the commercial department of the state university. For a time there seemed to be, in this district, a definite purpose of separating the manual training students from the regular school and establishing special schools for them. The same was true of the commercial students. The tendency is now the other way, no doubt the result of experience. They are part of the regular high school in most cases, and courses are provided for them. Although our commission appointed a committee to report a definition of the work in Manual Training, no definition has as yet been given; no units are recommended in this subject for graduation from the high school and credits to the technical schools and scientific departments of the colleges. It is not my purpose to discuss the units of these subjects but to speak of them to assist in pointing out the line of duty of the High School of to-day.

Again, in many of the high schools not more than one-third of those who enter graduate. In the school with which I am most familiar, less than one-half of those who enter graduate, and of those who graduate about one-half enter higher institutions; that is, less than one-fourth of those who enter the high school enter the college or scientific school. This is another indication of the line of duty of the public high school.

The recommendation of the Committee of Ten, "That the instruction in any given subject shall not be different for a student preparing to enter a higher institution from that for the students who

go no further than the high school," is doubtless theoretically correct, but I challenge the statement under our present definitions. It is wholly impracticable. Wilson Farrand, in an admirable paper before the Schoolmasters' Association of New York and Vicinity, asks this question: "Are college entrance requirements too great in quantity?" His reply is: "I answer the question unhesitatingly in the affirmative." I, as unhesitatingly, endorse his answer.

There is no question in this district as to the number of units required for entrance to college. Fifteen units are not too many; but the size of the unit makes all the difference in the world. It makes some difference to the farmer selling produce whether he is to give fifteen pecks or fifteen bushels. Let us look for a moment at the measure in the "unit" of each of three or four subjects. In Algebra, the requirement is nominally unchanged, *i. e.*, through a certain topic, but examine any modern text and see how much has been inserted within a few years. The Graph is only one of the additional topics. In Geometry, one year should be sufficient, but again the new texts will show a fifty per cent increase and a large amount of original work. Valuable, yes, the most valuable part of the work perhaps. Where examinations are to be taken the range is at least seventy-five per cent broader than formerly. Take Physics, with its largely increased mathematical work. One eminent instructor said to me: "We are all up in the air in the subject, teachers and pupils." Some splendid work is being done changing the requirements in this subject, and I congratulate Professor Mann and his commit-

tee for what they have done in bringing the subject "down near the earth again." The maximum amount of Latin remains the same, but it is not possible to do justice to the amount required in four years with five recitations each week. Yes, it is possible by giving as much time to that as to all the other subjects combined. I have often found that to be the real situation. The statistics show a large increase in the number of those taking Latin in our secondary schools, but I do not remember that the statistics showed the number that had "fallen by the way;" showed how many had really completed the course. In the Modern Languages, there is too much given in both the minimum and maximum, especially in the former where there should be time for drill and growth.

Of course the pressure cannot be as great in the North Central district, under the accrediting system, as in the East under the College Board. I am thoroughly in sympathy with our system and hope that it may be extended in time, but the East does not take kindly to the accrediting system. I am not opposed to examinations conducted as they are by the College Board with a review by secondary men who are familiar with the age and conditions of the secondary student, providing the definitions be reduced to reasonable limitations and be the same as in the accrediting system.

For those high schools which are preparing students for the eastern colleges and consequently for examinations, the task is indeed a difficult one. I quote from Mr. Farrand's paper: "Fifteen points are required to enter Columbia. The entrance requirements of Princeton amount to something over

seventeen points. When a substitute for Greek is chosen at Yale they amount to seventeen points. Harvard demands of the students either seventeen or eighteen. I am inclined to think that eighteen is nearer the mark." To state it in another way he says: "To enter Cornell the student would have to pass fourteen points; to enter Columbia he would need another point; to enter Princeton or Yale he would have to add German or French, and if he goes to Harvard he will have to pile Physics onto the load. If students are to be prepared in our schools to enter such colleges as Yale, Princeton, Brown—and the same holds true of Smith and Vassar—the courses of these schools must cover at least sixteen points of work." He adds: "Is there any practicable remedy on which we can unite? There is one remedy and but one. That is to face the situation squarely, and to change the conditions."

To show to you the strong convictions of the secondary men of the East, I submit to you the report, or request, of the Schoolmasters' Association of New York and Vicinity to the College Entrance Board, submitted at its spring meeting:

*Resolved*, That in the judgment of this Association college entrance requirements are at present too great in quantity to secure the best quality of preparation.

*Resolved*, that the College Entrance Examination Board be requested to revise its requirements, by reducing the quantity in certain subjects. The particular modifications are:

(1) Elementary Algebra: The omission of the subjects beyond Quadratics.

(2) Plane Geometry: The preparation of a syllabus containing the essential propositions, and the restriction

of original work to exercises based upon those propositions.

(3) French and German: (Elementary and Intermediate). The revision of the lists of recommended books, and the reduction of the number of pages to be read.

(4) Physics: A reduction in the amount of mathematical work demanded.

(5) History: The restriction of questions requiring "comparison and the use of judgment on the pupil's part" to such as are commensurate with the maturity of secondary school students. The ending of the period of Ancient History with the Death of Diocletian (A.D.305).

*Resolved*, that in the judgment of this Association fifteen points, as indicated on the attached scale, are all that may reasonably be required for admission by any college.

| | |
|---|---|
| English | 3 points |
| Algebra and Plane Geometry | 3 " |
| Latin | 4 " |
| Greek | 3 " |
| Elementary French or German | 2 " |
| Intermediate French or German | 1 point |
| History (each field) | 1 " |
| Solid Geometry and Plane Trigonometry | 1 " |
| Physics or Chemistry | 1 " |

This report was signed by seven of the strong men of the district among whom was Mr. Farrand and by whom it was presented to the College Board of which he is a member. The chairman ruled that the "Court had no jurisdiction." This has always been the position of the Board, namely, that the Board did not set the requirements but gave examinations on the requirements that had been established by responsible bodies or committees of specialists. It was finally voted by the Board to

appoint a committee from among its number to report a plan of action at the fall meeting.

This committee through its chairman, Mr. Farrand, reported three different plans. One plan suggested that there be constituted a standing committee of thirteen on the definition in each subject, five of this committee to be specialists and the remaining eight to be representatives of the colleges and secondary schools of the different sections of the country.

This plan was met by an objection from a representative of one of the colleges to the effect that secondary men should not be on such a committee; that the committee should be composed of learned men; that the secondary schools should accept the task set for them by the specialists. This seems a fatal mistake and shows a lack of understanding of the functions of the public high school. The specialists do not set the task for the high school; it is under the control of the state. If the same view were taken by all the colleges there could be but one result—the preparation for these colleges would necessarily be left wholly to the private preparatory school, while the high school would necessarily turn to its logical head, the state university.

I do not say that the high school can not do this work but rather that it *should not* in justice to the entire student body. It is the work, the touch, the life of the teacher that makes the student of character, and that teacher should be deeply interested in the course and should have time to accomplish the results for which his ideals call.

Our plea is not alone for the small minority who enter college, that they may present a better

quality of work rather than quantity, that they may in every way be better fitted to pursue the higher work to a successful issue, but for the hundreds who would doubtless enter college were they not crowded out in the rush, and for that other large part who do not intend to go further than the high school, but for whom the pace is set by the college part and for whom the race is too swift.

The College Board referred the report back to the committee, but it took action in a way that will have, doubtless, far reaching influences. It appointed a committee to review the entire college requirements upon which the Board bases examinations and to make a report to the Board as to what should be done. That committee is composed of four college men of whom Dean Hurlbut of Harvard is chairman, and three secondary men, one representative of the New England Association, one of the Middle States and Maryland, and one of the North Central Association. Of course the action of this committee cannot be anticipated, but should it recommend to the College Board a reduction of requirements in different subjects, who would make the changes? There is no established commission even of specialists on definitions. I fully believe that this is not the function of the College Entrance Examination Board, that is, the making of the "definitions"; that it should be left to some kind of permanent commission.

In conclusion the following recommendations are offered:

First, that our Commission of Accredited Schools instruct the Committees on Definitions that they have already appointed, to review the

definitions and limit the same in harmony with the recommendations of the Schoolmasters' Association of New York and Vicinity.

Second, that this Association ask the College Entrance Examination Board to establish, or to join with the North Central Association in establishing, a permanent commission on definitions in each subject of the secondary school, the Commission to be composed as follows: Three specialists from each of the associations of specialists and two from each of the four associations of colleges and secondary schools in the country; that is, the associations of specialists each be asked to appoint three members—for example, the Historical Association to appoint three members—and each of the four associations—the New England, the Middle States and Maryland, the North Central, and the Southern—be asked to appoint two from their own committees on definitions, one of whom at least shall be a secondary man.

Third, that all questions as to revisions of definitions at any time be referred to their respective commissions.

Fourth, that all students who come to the colleges of the North Central Association without certificates from the secondary schools, but who must take the examination of the college, be given the examination of the College Entrance Examination Board. With the harmony and unity of the definitions, this would be possible and the two systems would work together.

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It was voted that the recommendations made in President Harris's paper be adopted.

The report of the Treasurer, Principal J. E. Armstrong, Englewood High School, Chicago, was presented as follows:

## REPORT OF THE TREASURER OF THE ASSOCIATION FOR THE YEAR ENDING MARCH 29, 1907.

### RECEIPTS.

| | | |
|---|---|---|
| Cash on hand at date of last report | $145.50 | |
| From the sale of reports and blanks | 39.95 | |
| From eighty-one $3 memberships | 243.00 | |
| From seventeen $5 memberships | 85.00 | |
| From eighteen $10 memberships | 180.00 | |
| Total | | $693.45 |

### DISBURSEMENTS.

| | | |
|---|---|---|
| Printing | $291.29 | |
| Expenses of committees | 151.40 | |
| Express | 2.00 | |
| Postage (and exchange) | 2.20 | |
| Total | | $446.89 |
| Cash on hand | $246.56 | $693.45 |

J. E. ARMSTRONG,
TREASURER.

March 29, 1907.

The Executive Committee recommended the following institution and individuals for membership in the Association:

### FOR INSTITUTIONAL MEMBERS.

The East Division High School, Milwaukee, Wisconsin.

### FOR INDIVIDUAL MEMBERS.

E. J. Townsend, Professor of Mathematics, University of Illinois.
A. A. Reed, High School Inspector, University of Nebraska.
C. E. Swanson, Superintendent of Public Instruction, Pierre, South Dakota.
H. G. J. Coleman, High School Inspector, University of Colorado.
F. W. Ballou, High School Inspector, University of Cincinnati.
Walter Libby, High School Inspector, Northwestern University.
Webster Merrifield, President of University of North Dakota.

On motion, the recommendations of the Committee were adopted, and the institution and individuals named above were elected to membership in the Association.

The Committee also presented the following amendments to the Constitution:

1. That Article 3, Section 3, be stricken out.
2. That the following section be added:

If the dues of any member shall remain unpaid for a period of two years, such membership in the Association shall lapse.

On account of the fact that the number of secondary school memberships is in excess of the members from higher institutions, it was decided that no more secondary schools shall be elected, at least until the Constitution shall be changed. The amendments, in accordance with the Constitution, were laid on the table for one year.

*The Committee named Professor A. S. Whitney of the University of Michigan as delegate from the Association to the Williamstown Conference.

Professor J. V. Denney was then called upon by the President to explain the action of the Executive Committee. He spoke as follows:

Although the amendment cannot be voted upon before the next regular meeting of the Association, it seems desirable at this time, to make known the reasons which impel the Executive Committee to introduce this amendment.

The membership of the Association is at present about equally divided between representatives of secondary education and representatives of higher

*Professor Whitney later declined this appointment, and the President named Principal F. L. Bliss to take his place.

education. Very few colleges that are eligible to membership now remain outside of the North Central Association; but there are at least two hundred eligible secondary schools in north central territory that do not belong to the Association. Some of these schools desire membership, but under the present constitutional provision they must wait until an equal number of institutional or individual representatives of higher education apply for membership and are found eligible.

This year the accredited list of the Association will carry three hundred and thirty-three secondary schools, all of them eligible to membership in the Association. There is not likely ever to be a time when the representation of higher institutions can be brought up to that figure. The Association then through one committee is declaring a large number of schools eligible, while through another committee it is refusing membership to these same schools. The Executive Committee sees no way out of this difficulty except to abolish the constitutional provision requiring it to keep the membership equal as between higher and secondary education.

The Executive Committee believes that no harm will arrive by making the change proposed. Secondary schools are not accredited by the Association unless they are taught by college graduates or by those of equivalent education. Consequently this Association is sure always to be composed of college people. There never has been an occasion in this Association when on any question the representatives of secondary education have voted one way and the representatives of higher education another way. We are all secondary school people

when we discuss a secondary school problem, and all college people when we discuss a college problem. The Executive Committee favors a policy that will enable us to recommend desirable institutions for membership as they may apply, whether they be higher or secondary.

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The report of the Committee on Athletics was presented by the chairman of the committee, Principal E. L. Harris of the Central High School, and was read by the Secretary as follows:

## REPORT OF THE COMMITTEE ON ATHLETICS.

In accordance with your action at the last meeting, your Athletic Committee had printed for distribution its last report. It was rather late in the season and doubtless all members did not receive copies.

The results of the work of this Association in its recommendations in regard to Athletics have been very satisfactory. In many of the states, associations have been formed among the secondary schools and among the colleges that have adopted your recommendations. This is especially true in reference to the one year residence rule.

Your Committee reports, therefore, very satisfactory progress in this district in the line of athletics.

It may be well now to discharge your Committee as there is little work for it to do except to watch the continued development in higher ideals in all Athletic relations. EDWARD L. HARRIS,

Central High School, Cleveland, Ohio.

It was voted that the report be received and the committee continued.

A report of the Medical Committee was next called for, but President H. C. King, chairman of the committee, was not present, and no report was rendered.

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The following report was presented by Principal Edward L. Harris, delegate to the College Entrance Examination Board, and was read by the Secretary.

## REPORT OF DELEGATE TO COLLEGE ENTRANCE EXAMINATION BOARD.

Your delegate to the College Entrance Examination Board has attended two regular meetings during the past year, the first one on April 21, and the second on November 10, 1906.

These meetings were held in New York City in the Trustees' Room of Columbia University. These meetings are strictly business meetings of the Board and are always conducted in a prompt businesslike manner. The following order at the April meeting will indicate the kind of work done.

### ORDER OF BUSINESS.

I. Roll Call.

II. Minutes of Meeting of November 11, 1905.

III. Communications from the Chairman.

IV. Communications from the Secretary:

1. Letters from absent members.
2. Progress of the work of the Board.

V. Communications from the Executive Committee:
   1. Requirements in Music.
   2. Requirements in Geography.
   3. Date of Examination in 1907.
   4. Appointment of Examiners for 1907.

VI. Reports of Special Committees:
   1. Auditing Committee.
   2. Committee on Standard for Admission to Membership.
   3. Committee on Laboratory Note-book Certificates.

VII. Communications from Committee on Revision:
   1. Ratings in French bc and German bc.
   2. Modernization of Texts Recommended in French and German.
   3. Relations between Examiners and Readers.

VIII. Miscellaneous Business:
   1. Position of Zoology and Music in Time Schedule.

One of the most interesting reports was the one submitted by the Committee on the standatd for admission to membership of which Dean Hurlbut of Harvard was chairman. You will note the attempt to define a college. The following is the report:

## STANDARD FOR ADMISSION TO MEMBERSHIP IN THE BOARD.

In the College applying for admission:

1. There shall be specifically defined and consistently carried out, whether by examination or certificate (or for the admission of special students), requirements for admission which shall in every case be equivalent to a four years course in a college-preparatory or high school of good grade, able to prepare its pupils for admission to the colleges already belonging to this Board.

2. The members of the faculty shall have an academic training adequate to maintain a high standard of teaching; they shall bear a proper proportion to the students to be taught, and shall be sufficient in number to permit of proper specialization in the subjects assigned to each individual instructor.

3. The breadth of the college curriculum, the standard of graduation, the grade of work and the amount of work demanded shall be proper subjects of inquiry by the Executive Committee and shall constitute factors in determining their decision.

4. There shall be no preparatory department under the government or instruction of the college faculty.

5. There shall have been, for at least three years preceding the application for admission, an average of at least fifty students in the regular entering classes (courses in arts and in science to be reckoned together for this purpose).

6. There shall be an annual free income bearing endowment, yielding in no case less than $20,000 annually, in case of State Universities or State Colleges, an equal appropriation, expended exclusively on the undergraduate department, as well as libraries, laboratories, buildings, and equipment adequate to maintain the degree of efficiency and the standard of scholarship contemplated in the above provisions.

II.

Every college desiring to be admitted to membership in the Board shall be required to fill out and file with the secretary at least three months

beford the stated meeting of the board at which action on the application is desired, an application blank, and to furnish such additional information or proof of the statements submitted, as may be desired by the Executive Committee, and any recommendation or recommendations of the Executive Committee for membership shall be communicated to the members of the Board at least one month before said stated meeting.

III.

Colleges shall be admitted to the Board on a two-thirds vote of the Executive Committee confirmed by a two-thirds vote of the members of the Board.

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ANNUAL DUES.

Annual dues of one hundred dollars shall be imposed on every college holding membership in the College Entrance Examination Board, said fees to be used primarily for the proper conduct of the examinations.

A communication from the Modern Language Association, requesting a change in the requirements of German and French led to the appointment of a committee "To consider and report upon the best method of making such changes and modifications in the definitions of entrance requirements as may from time to time become desirable." Wilson Farrand, of Newark, New Jersey, the Secondary Representative of the Middle States and Maryland, was made Chairman. This Committee was requested to report at the November meeting.

Mr. Farrand was also appointed by the Executive Committee to represent the "Board on the

joint committee authorized by the National Association of Universities to present a plan for establishing, preserving, and interpreting in common terms, standards of admission to college."

At the conclusion of the meeting of the Board, the members were the guests at luncheon of the Chairman, President Butler, and the Trustees of Columbia University.

At the November meeting, the members of the Board were invited to be present the day preceding the meeting, to attend the exercises of laying the corner stone of Brook's Hall of Barnard College of Columbia University. Your delegate had the pleasure of representing this association on this very enjoyable occasion.

At the meeting of the Board, the question of cooperation with the New York State Examination Board was again brought up, and a committee, of which President Butler was made Chairman, was authorized to consider the matter fully and to report at the next meeting.

A very strong protest in reference to the number of units required for entrance to college and the amount of work in several of the definitions was presented by Mr. Wilson Farrand from the Schoolmasters' Association of New York and Vicinity.

Perhaps the most important matter to come before the Board, as if in answer to this protest, was the report of that Committee appointed at the April meeting, to consider methods of making changes and modifications in the Definitions of Entrance Requirements. A part of the report is here presented:

"The policy of the Board, up to the present time, has been to adopt, wherever possible, the recommendations of authoritative committees of specialists, as in the case of our requirements in English, History, Mathematics, and Modern Languages. While this policy has undoubtedly been wise, two difficulties have already developed.

"The first is that there is no uniform method of appointing these committees, and in most cases no provision for the continuance of the committees and of their work. The English Conference is appointed by the four Associations of Colleges and Preparatory Schools, and meets regularly every two or three years, so that the continuance of its work is provided for. Other committees were appointed respectively by the American Historical Association, the American Mathematical Association, and the Modern Language Association, while some committees were appointed under the authority of the National Educational Association. In every case these committees appear to have done their work, and then to have gone out of existence, so that there is no way to secure the slightest change in any of these requirements, unless new committees are appointed, or unless the Board changes its policy and assumes the responsibility of making any modifications that it may think desirable.

"The second difficulty is that there is no central committee of revision and adjustment, and, therefore, no means of pruning the excessive demands of specialists—if such occur. It is charged that such excessive demands have been made, and, without entering into the question, it may be admitted that there is at least a danger of this, and that any

permanent plan for the formulation of entrance requirements should guard against such a possibility.

"Four possible methods of framing requirements have been suggested and considered by your committee. The first is that the Board should assume the responsibility of appointing the committees in the various subjects, drawing upon its force of readers and examiners, or selecting individuals from the colleges represented in the Board, and from secondary schools. Your committee is of the opinion, however, that this plan, which would involve a radical change of policy on the part of the Board, would involve so many complications, and would mean such a centralizing of power in the Board, that it would be distinctly unwise and undesirable.

"The second plan is for the Board to request each of the associations devoted to special subjects, such as the Historical and Modern Language Associations, to maintain a permanent committee which should meet at regular intervals of, say, two or three years.

"The third suggestion is to follow the plan of the Conference on Uniform Entrance Requirements in English, and ask the different associations of colleges and preparatory schools to unite in appointing joint committees to frame and revise the requirements in the various subjects. There are four of these associations, and if each appointed three delegates, there would be formed a committee of twelve, which would be fairly representative of the whole country and of the various types of institution.

"The fourth suggestion is of a combination of the second and third plans. It is that, wherever practicable, each of the associations devoted to special subjects should appoint a committee, say of five members, and each of the associations of colleges and preparatory schools should appoint two delegates, the joint committee to frame the requirement in that subject.

"The one definite recommendation which the committee makes at present is the establishment of a committee of review, composed of members of the Board, whose particular duty it would be to weigh and consider all reports of the different special committees and to make definite recommendations to the Board as to their acceptance or modifications. It might also serve as an organ of communication with the different committees, transmitting to them any criticisms or suggestions that might be deemed of importance. This committee of review your committee regards as one of the greatest importance and as likely to become one of the most valuable features of the Board's work. It should be large enough to be fairly representative, but not of such size as to be unwieldly; and it should be selected with great care, special consideration being given in this connection to the judicial character of its duties. The secondary schools should, of course, be adequately represented in its membership. The membership of the committee should also be reasonably permanent, a majority of its members holding office from year to year. It is not proposed that this committee should have absolute power. Any alteration or modification of the requirement recommended by any spec-

ial committee should be made only by vote of the full Board, but the discussion and investigation of these questions would be carried on by the committee of review, and its recommendations should come to the Board with the force of authority."

This report caused a lively discussion. The four recommendations were referred back to the committee to report at the May meeting. The Board did adopt the recommendations for a committee of review and authorized its chairman, President Butler, to appoint such a committee subject to the call of the chairman. President Butler appointed the following:

Dean Hurlbut of Harvard, Chairman.

President Taylor of Vassar.

Dean Crane of Cornell.

Dean Ferry of Williams.

Wilson Farrand of the Middle States and Maryland Association.

William Gallagher of the New England Association.

Edward L. Harris of the North Central Association.

This committee will be a most important one of the College Entrance Board and will doubtless have great influence in this country in establishing some central authority on definitions and uniform requirements for College Entrance.

Your delegate believes that the College Entrance Examination Board is doing a great work and that the North Central Association should cooperate with it in the question of definitions and college entrance requirements.

Respectfully submitted, EDWARD L. HARRIS.

President George E. MacLean, of Iowa State University, delegate to the National Association of State Universities, then presented the following report:

I have the honor to report as your delegate to the conference on inter-relating college entrance requirements and credentials by submitting the following printed copy of the meeting of the conference, held at Williamstown, Mass., August 1906.

It is a significant and encouraging fact that the delegates, without previous conference and with some anticipation that there might be differences, found themselves of one mind, acted unanimously, and believed that the time was ripe for a national movement of great value toward establishing national entrance requirement standards. It became evident that there was no necessary antagonism between an individual examination and certificate system and an institutional inspection and accrediting system. It is necessary to define units and to have responsible bodies to interpret and administer the terms.

The resolution of the greatest significance which I recommend, together with the other resolutions of the conference you adopt, is that of the formation of a national permanent commission consisting of delegates from the bodies like this mentioned in the report, and such other bodies as may adhere and be accepted. The following bodies have already accepted the report of the Williamstown Conference: The National Association of State Universities; the New England Association of Calleges and Preparatory Schools; the Association of Colleges and Preparatory Schools of the Southern

States; the Association of Colleges and Preparatory Schools of the Middle States and Maryland.

The following delegates have been appointed for the National Commission:

National Association of State Universities, George E. MacLean.

New England Association of Colleges and Preparatory Schools, William C. Collar.

Association of Colleges and Preparatory Schools of the Middle States and Maryland, Herman V. Ames.

I recommend that this Association appoint a delegate, either a secondary school man or one who is thoroughly familiar with secondary school work as well as with college work.

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## MINUTES OF THE CONFERENCE FROM THE FOLLOWING ASSOCIATIONS OF DELEGATES ASSEMBLED AT WILLIAMSTOWN, AUGUST 3 AND 4, 1906.

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### The Call.

Resolutions of the National Association of State Universities.

*Resolved:* That the Executive Committee of the National Association of State Universities be authorized to seek for the appointment of a joint committee consisting of at least one delegate from each of the following organizations:

The New England Association of Colleges and Preparatory Schools;

The Association of Colleges and Preparatory Schools of the Middle States and Maryland;

The Association of Colleges and Preparatory Schools of the Southern States;

The North Central Association of Colleges and Secondary Schools;

The College Entrance Examination Board.

The said joint committee to present a plan for interrelating the work of these respective organizations in establishing, preserving, and interpreting in common terms the standards of admission to college, whatever be the method or combination of the methods of admission, in order to accommodate migrating students and to secure just understanding and administration of standards.

Voted, Washington, D. C., November 18, 1905.

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## The Conference.

Williamstown, Mass.

August 3, 1906.

As a result of favorable action upon the invitation extended by the National Association of State Universities on the part of the several organizations named in their resolutions, the following delegates assembled at the residence of Professor A. B. Morton, at 8:30 p. m.

Professor Herman V. Ames, University of Pennsylvania, from the Association of Colleges and Preparatory Schools of the Middle States and Maryland.

Dr. William C. Collar, Roxbury, Mass., from the New England Association of Colleges and Preparatory Schools.

Principal Wilson Farrand, Newark Academy, Newark, N. J., from the College Entrance Examination Board.

Professor Frederick W. Moore, Vanderbilt University, from the Association of Colleges and Preparatory Schools, of the Southern States.

President George E. MacLean, The State University of Iowa, from the North Central Association of Colleges and Secondary Schools.

The conference organized by the election of President MacLean as President, and Professor Ames as Secretary. On motion, President George E. Fellows, of the University of Maine, Secretary of the National Association of State Universities, was welcomed as a member of the conference. After reading, by the Secretary, of the resolutions of the National Association of State Universities presenting the object for which the conference had been called, President MacLean opened the discussion with a history of the movement that had led to this gathering, reading at some length from the Presidential address of Principal Frederick L. Bliss before the North Central Association of Colleges and Secondary Schools in 1905. A general discussion followed in regard to the nature and scope of the subjects to be considered by the conference. At 10:30 P. M. the conference adjourned.

August 4, 1906.

The conference re-assembled at 9:30 A. M. in Griffin Hall, Williams College. After general discussion, Dr. Collar presented the following resolution:

*Resolved:* That this conference recommend to the various Associations of Colleges and Preparatory Schools, that the colleges which accept certificates, recognize the validity of the certificates from all schools accredited by the New England College Entrance Cer-

tificate Board, and schools accredited by the North Central Association of Colleges and Secondary Schools.

This resolution was unanimously adopted.

Principal Farrand then offered the following resolution:

*Resolved:* That this conference commends in general the difinitions and standards established by the College Entrance Examination Board, and recommends that the various Associations of Colleges and Preparatory Schools coöperate with the Board in formulating and revising, when desirable, these definitions.

The resolution was unanimously adopted.

Dr. Collar moved the adoption of the subjoined resolution:

*Resolved:* That greater relative weight should be given to modern foreign languages in entrance examinations.

After general discussion, the resolution was laid on the table.

President Fellows presented the following resolution:

*Resolved:* That this conference recommends that a permanent commission be established for the purpose of considering, from time to time, entrance requirements and matters of mutual interest to Colleges and Preparatory Schools; that the commission be composed of delegates from the following organizations:

The New England Association of Colleges and Preparatory Schools;

The New England College Entrance Certificate Board;

The Association of Colleges and Preparatory Schools of the Middle States and Maryland;

The College Entrance Examination Board;

The North Central Association of Colleges and Secondary Schools;

The Association of Colleges and Secondary Schools of the Southern States;

The National Association of State Universities, and such other organizations of Colleges or Secondary Schools as may join.

The resolution was unanimously adopted.

Professor Ames proposed the subjoined resolution:

*Resolved:* That this conference recommends to the Association of Colleges and Preparatory Schools of the Middle States and Maryland and to the Association of Colleges and Preparatory Schools of the Southern States that each consider the desirability of organizing a college entrance certificate board or a commission for accrediting schools.

The resolution was unanimously adopted.

The question of the importance of uniformity in granting advanced standing to students migrating from one college to another was discussed. The conference agreed in considering this matter of great importance, but the formulating of any recommendations was deemed inexpedient at this time.

President Fellows submitted the following resolution:

*Resolved:* That in the judgment of the conference it is extremely important that all examinations for admission to college, whether set by a board or by a college, should be either prepared or reviewed by persons who have had experience as teachers in secondary schools.

This resolution was also unanimously adopted.

Resolutions extending the thanks of the conference to the authorities of Williams College, to Dean Ferry and to Professor Morton for the hospitality and courtesy extended to the delegates were unanimously adopted.

The minutes were read and approved subject to verbal changes.

The conference adjourned sine die at 12:30 p. m.

Appendix I.

Permit me to add to the report as certain excerpts from the report of the Commissioner of Education in New York, indicative of what may prove an important movement from that quarter, and one, possibly, that in time may co-operate or coalesce with the movement that the permanent commission will have in hand.

*Resolved:* That it is the sense of this board that ratings obtained in the examinations of the College Entrance Examination Board shall be accepted in whole or in part for State academic credentials on a basis to be established by the Education Department, in lieu of examinations conducted by the State examinations Board.

*Resolved:* That the Commissioner of Education be authorized to appoint a committee of five to prepare a plan of certification for college entrance, to be submitted for consideration of the State Examinations Board at a future meeting."*

Appendix II.

The national association of Physics teachers have communicated their plans for the revision of

*New York State Education Department. Minutes of a meeting of the New York State Examinations Board. Albany, N. Y., January 12, 1907.

units in physics, and have asked if the proposed commission would co-operate with them. It would seem to me that it may be in the province of the proposed commission to serve as a clearing house for matters wrought out by commissions of specialists or other organizations, and give these matters national currency.

Appendix III.

President Harris's address this morning brings us the latest information concerning the discussions and proposed revisions of units of the College Entrance Examination Board. If that board, ably represented in the Williamstown Conference by Principal Farrand, elects a delegate to the proposed permanent commission, there is every reason to think it may be of great service in an attempt to co-ordinate differences of units for the entire country, for those having an accrediting system, as well as those having an entrance examination.

It was voted that the resolutions contained in this paper be approved. It was voted that the North Central Association approve of such a committee as was suggested in the report, and that a delegate be appointed by the Association. The appointment of this delegate was referred to the Executive Committee.

The President then announced the following committees:

*To Audit the Treasurer's Report:* Professor W. W. Boyd, Ohio State University, Columbus, Ohio; Principal George W. Benton, Shortridge High School, Indianapolis, Indiana; and Principal Frank Hamsher, Smith Academy, St. Louis, Missouri.

*To Recommend the Time and Place of the Next Annual Meeting:* Principal F. L. Bliss, University School, Detroit, Michigan; Dean Marshall S. Snow, Washington University, St. Louis, Missouri; and Principal H. H. Cully, Glenville High School, Cleveland, Ohio.

*To Nominate Officers for the Ensuing Year:* President George E. MacLean, State University of Iowa, Iowa City, Iowa; Professor F. G. Hubbard, University of Wisconsin, Madison, Wisconsin; Principal W. J. S. Bryan, St. Louis, Missouri; Director G. N. Carman, Lewis Institute, Chicago, Illinois; and Professor A. S. Whitney, University of Michigan, Ann Arbor, Michigan.

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The following paper was then presented by Professor Charles A. Bennett, Bradley Polytechnic Institute, Peoria, Illinois:

## THE MANUAL ARTS: TO WHAT EXTENT SHALL THEY BE INFLUENCED BY THE RECENT MOVEMENT TOWARD INDUSTRIAL EDUCATION.

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CHARLES A. BENNETT, BRADLEY POLYTECHNIC INSTITUTE
PEORIA, ILLINOIS.

For several years past, drawing and manual training have been finding a more and more important place in the work of our public schools. These two subjects began as the results of independent movements, but they have been growing nearer and nearer together, and in their best development they have now become so unified that they are properly designated by the single term

Manual Arts. And this development has not been merely the bringing together of the two original lines of work, but rather, the broadening and enriching of both, so that the term Manual Arts stands for more than was meant a few years ago by both drawing and manual training together.

At the present time there is another movement toward industrial education which is distinct from either of the two former ones. The report of the Massachusetts Commission on Industrial and Technical Education and the formation of the National Society for the Promotion of Industrial Education represent this new movement. The contention of this movement is that the public schools are too academic in character, and that the industries and the industrial workers of America are suffering for want of a kind of education that is more distinctly vocational in character. This movement would not wish to have public education less cultural, but it would emphatically demand that it be more vocational. Public education should at least do as much toward fitting for the mechanical, building, textile, and for other trades, and for agriculture, as it now does for the professions.

The Manual Arts, then, stand for work that is cultural first and then vocational, while the Industrial Educational movement would have the handwork vocational first and cultural second, or perhaps more correctly, cultural by virtue of being highly vocational. The question before us is: To what extent may we harmonize these viewpoints in public school work; or, in other words, is it not possible to modify the work in manual arts so as to meet the demand for industrial education, so far as

it can be legitimately met in public schools, without establishing schools of a different type?

As we look back upon the development of manual training in America we see that when manual training first started it was very technical in character, though the aim, as set forth by its advocates, was general and not technical education. In reality the school shop at that time was but one step removed from the manufacturing shop. As the work developed, the teacher of manual training gradually came nearer living up to his general educational ideal, and this change, as might be expected, was accompanied by some sacrifice on the technical side of his work. Not always, but often —and I am inclined to think more often than not— the movement was away from the methods of the best workmen in the commercial shops. This may not have been done consciously, but it was a natural result of the continual emphasis on the general educational aim. At that time the argument constantly brought forward was: "We are not teaching a trade; we are training the faculties of the children—training the observation, the imagination, the will, etc. We hold to a democratic ideal which prevents us from condemning any boy to a life of hand labor. Every boy must have an equal chance in the public schools." The tendency of this theory was to introduce problems having less and less to do with the technique of practice in the trades. This theory was held until a new psychology was substituted for the old, and we ceased to be afraid to admit the technical or trade value of our work. Now there is no need of putting up the old-time arguments, and we are coming to have a far

more rational basis for our work. And in so far as we are doing that, we are realizing the necessity of making the technique of our work square with that of the expert workman in the commercial shop.

In the development of drawing in our public schools the record is not far different. When it started thirty years ago it was patterned after the drawing of the technical schools of England, and these schools were in close touch with English industries, yet its advocates, foreseeing the industrial future of America, urged that drawing be made a part of general education. As the instruction developed, it broadened to take on the art ideal, and while we are more than glad that it did, we recognize that in doing so it became farther removed from the industries. Now under the influence of the Arts and Crafts Movement, and in contact with the broader development in manual training, drawing is coming back to industry again and coming with a richness that portends a remarkable future for industrial art in America.

Turning now to the present Industrial Education movement, it is easy to trace its origin to the failure of the public schools to keep up with the times. Industry has developed faster than the schools have developed on the side of industry. In this matter too, as in manual training and drawing, we have followed our democratic culture ideal of education, and practical education has suffered thereby. We have said, "Every boy must have a chance to become president of the United States," and we have shaped his course to accord with our idea of the shortest route. In this it looks now as if we have made a mistake—not in having a

democratic ideal, but in starting every boy by the same route, and especially on a route that leads away from the manual industry by which he must earn his living before he gets to be president. We have forgotten that Lincoln was a rail splitter before he was president, and that he didn't merely play at rail-splitting, but really split rails to earn his daily bread.

Our public schools, even with drawing and manual training, have not met the demands of industry. There is a decline in skill of hand, felt throughout the country, so that there is now a national demand for skilled workers in the industries and there is no adequate means of supplying this demand. The Industrial Education movement says that the only way to meet this demand is through schools of some kind—either through our present public schools in revised form, or through independent schools. Moreover, it points out that true culture comes through the mastery of an art more than through a study of its elementary processes merely. We speak of Greek as a culture study, but we surely do not mean that the study of Greek grammar gives culture. The culture comes chiefly from contact with the Greek thought that is gained after the grammar has been mastered. Likewise the Industrial Education movement is bringing home to us the thought that the elementary processes of formal manual training, while disciplinary, are not so cultural as processes that naturally follow these and also meet more specifically the demands of the trades. According to Mrs. Mary Schenck Woolman, this has been strikingly

illustrated in the work of the Manhattan Trade School for Girls.

Industrial Education aims to produce trained workers for the industries, but these workers must be intelligent as well as skillful. The aim is not to produce more machine tenders but more thinkers—not, however, thinkers with reference to higher mathematics, history or government, but thinkers with reference to the particular industry in which the workers are to engage. This movement, then, aims first of all to develop industrial efficiency.

If we review for a moment the present aim of the manual arts and the aim of the new movement toward industrial education, we see that they have many elements in common. We see that the aim of the manual arts is, first, general education, and second, vocational training, while the aim of the industrial movement is, first, vocational training, and second, general education. From this standpoint the difference is one of emphasis. Both stand for the general educational value of hand training; both recognize the importance of stimulating thought in connection with handwork. Both appreciate the value of art. On the other hand, there is a difference that in the past at least has kept the two apart.

Manual training with its fear of being classed as trade work, and its emphasis on general training has often stopped a process before it reached the highest cultural stage—before anything approaching a mastery of that process had been gained. The effect of this has been the smattering that the trades people charge us with. While one can have little sympathy with many such statements,

he cannot fail, if he has been a thoughtful observer, to recognize that there is a sound basis for some of them. He must recognize that there was some reason for the following statement in the Massachusetts Report of the Commission on Industrial and Technical Education: "The wide indifference to manual training as a school subject may be due to the narrow view which has prevailed among its chief advocates. It has been urged as a cultural subject mainly useful as a stimulus to other forms of intellectual effort,—a sort of mustard relish, an appetizer,—to be conducted without reference to any industrial end. It has been severed from real life as completely as have the other school activities. Thus it has come about that the overmastering influences of school traditions have brought into subjection both the drawing and the manual work."

There is also another fundamental difference between the manual arts and trade instruction: The aim of the manual arts is idealistic while that of trade instruction is commercial. The manual arts' aim is often quality without reference to quantity—fine craftsmanship no matter how much time is consumed, whereas the trade school is quite sure to consider both quality and quantity, and to gauge both by the demands of commerce. No doubt we all would insist that the manual arts continue to keep quality first, but it is fair to ask if school standards are in fact always higher than the commercial, and whether the work would be less valuable as a means of general education if the time or quantity element were to be given some emphasis.

From this brief discussion we will turn now to answer the real question before us: How shall the Manual Arts be modified to meet present demands with reference to industrial education?

1. Give the teachers better preparation on the technical side. If possible require them to supplement technical training in school with actual experience in a commercial shop.

2. Courses in the manual arts in the upper grammar and high school grades should be made more practical by insisting on the best technique. Methods employed in the trades should be studied more and then followed.

3. In all grades of work more industrial intelligence should be developed. From every point of view it is a mistake to confine the instruction in the Manual Arts to the mere processes. The handwork should be the center about which clusters a great fund of information about materials—processes of procuring, preparing, refining, etc.,—application in the industries, masterpieces of art and construction, other methods of working and the like. Moreover, the problems worked out should be selected in part with reference to helping the pupils to get such information. Thought must be developed along with skill and that thought should not be confined to the bare process.

4. It is time to recognize that there are two types of courses in the manual arts in our high schools: (*a*) manual training courses *per se*, such as elementary woodworking or elementary metalworking; and (*b*) technical courses such as pattern-making, forging, machine shop practice, etc. The former are, and should remain, general foundation

courses in handwork. They should precede most trade or technical courses. The latter we have been in the habit of speaking of as manual training courses also, but I think we shall make a mistake if we continue to do so. The difference between the best manual training high school course in pattern-making and the best engineering course in pattern-making and the best trade school course in pattern-making is very small indeed after due allowances have been made for age and previous education of the students. Certainly pattern-making is an excellent subject for the purposes of manual training, but it is so much more specialized than elementary woodworking, for example, that teaching it well in a manual training high school really amounts to teaching the patterm-maker's trade, or such part of it as is possible to teach in the time available for that subject. Otherwise how could our students, who have need to do so, go out from manual training courses and at once become journeyman pattern-makers, or from the machine shop and become journeyman machinists? Moreover, the engineering colleges have recognized the fact that the manual training high schools give technical courses and have allowed college credit accordingly. It is high time that the manual training high schools themselves recognize this fact and thus bring their theory to accord with their practice. There is a distinct advantage in doing this, because the moment it is recognized that pattern-making, forging, foundry work, machine construction and machine drawing in manual training high schools are technical courses, and not fundamentally manual training courses, the schools will cease to draw im-

aginary lines of distinction, and will set about to make the courses better technically. In other words, they will make them more technical, more practical, and in doing so come nearer meeting the demands of industrial education in reference to these trades. It would also tend to make clear the difference between subjects worthy of college credit and those suitable for entrance credit only.

This point being accepted, it is clear that the elementary or manual training courses should be broadened and enriched, and that the advanced or technical courses should be more highly specialized and made to harmonize better with trade practice.

5. Under conditions of local demand in small high schools, and as regular subjects in large high schools, more technical studies should be added. For instance, the plastic arts and the book-making arts, which are finding a welcome place in the elementary schools, should be given a corresponding place in the high schools in technical courses in bookbinding, commercial design, and clay-modeling. This is largely an undeveloped field, but one likely to yield valuable results, especially as these subjects touch the work of girls as well as boys. This leads to the thought that the work in dressmaking, cooking and millinery in manual training high schools has been more confessedly technical in character than the boys' work, and has often gained its support wholly on that basis.

From the standpoint of organization the further development of these technical courses would probably mean a more general recognition of the value of electives.

6. Evening technical courses should be given wherever a reasonable attendance can be secured. The recent success of such courses in Springfield, Massachusetts and Brooklyn, New York, indicate that there is a real demand for this kind of continuation-school work. Not only are such courses a great help to those who take them, but the contact thus gained with real industrial needs is a help to the school. To talk with the workmen from the shops and learn their needs and difficulties is an excellent experience for the teacher of any technical subject.

The six modifications of the work in the manual arts just suggested seem but the logical development of the subject and ought to have been brought about even if there had been no agitation on the subject of industrial education, and it would seem that they go about as far as can be gone in public education without an entire reorganization of the public schools on an industrial basis, or the establishment of independent industrial or trade schools for pupils who prefer such a school to the time-honored one.

After all has been said on the question, there still remains the obvious fact that the manual arts work in the schools is so closely allied to trade work that if the public schools, as now organized, are to teach trades or are going to give such technical courses as will even in part meet the present demand for trade instruction, the logical plan of procedure is to have it come about through an evolution of the present work in the manual arts. And if such an evolution is to take place teachers must prepare themselves more thoroughly; they must in-

sist on the best technique being employed in their classes; they must work for greater industrial intelligence and must recognize that our present advanced manual training courses are really technical courses and treat them as such. Then the evolution will be a natural and easy one, and we shall certainly come much nearer than ever before to realizing the ideals of those who have sought to make our public schools as much a preparation for industrial pursuits as for commerce and the professions.

The discussion was continued by Mr. W. H. Elson, Superintendent of Education, Cleveland, Ohio, as follows:

The present movement for industrial education will, it seems to me, lead to the establishment of separate and special schools for trade instruction. Perhaps to an extent the present manual training plants may serve for the conduct of evening trade schools. In no sense will these industrial schools take the place of our present manual training schools, but indirectly they will re-act favorably upon the instruction given in them.

Manual training schools stand for industrial intelligence and for individual efficiency. Some difficulties present themselves in realizing these ends. First, it is difficult to establish in them the spirit of the industries and the methods of the practical workshop and to place the school under actual shop conditions when the boys are at work. Comparatively few manual training teachers have had actual experience in the industries. This is unfortunate. Again if manual training exists primarily for purposes of mind-training, the worker's own

thought shall go into the doing. He must be given an opportunity to make plans, to select means and to express himself in the decorative treatment. In other words the manual training school must not lay exclusive stress on the development of hand skill. The blue print must not be overworked in a school that is intended to develop initiative and power on the part of the student. On the contrary it must develop and train whatever of spontaneous power pupils have and they must be encouraged and enabled to use this growing knowledge and skill in the achievement of individual and social ends. To be truly an educational subject the school must not seek manual dexterity alone, but rather the ability to solve the problem in construction and in decorative treatment in such a way as to reveal the exercise of personal good judgment and taste on the part of the pupil.

This educative kind of manual training suffers from inadequate credit allowance toward graduation and because it is not recognized as college entrance subject-matter. The result of this influence is that many students are barred from taking the work or are limited in the amount of time they can devote to it. In consequence the character of the work varies with the different schools and there is a great lack of uniformity as well as no criteria for determining values. Naturally under these conditions large concessions are made to the students in the kind and quality of work done in the manual arts. We stand in great need of a definition of a unit of work in the manual arts and for the acceptance of work that meets these requirements as college entrance subject-matter. The college entrance com-

mittee of this association in coöperation with the manual arts workers should prepare a definition of a unit of work and a recommendation of credit allowance for college entrance. When this is done university inspection should be given this work as in other high school subjects. Doubtless much of the work done in the manual arts has not been worthy of credits. However, a standard of work once established and credits given for work which meets these requirements will prove a tremendous influence for improving the quality of the work done in the manual arts in secondary schools. Personally I believe in manual training. I believe it gives a training, rightly pursued, equal to that of any other subject in the school course and I believe the time has come when we should so recognize it and make it worth while by placing it upon the list of college entrance subjects.

The discussion was continued by Principal J. O. Leslie, Ottawa High School, Ottawa, Illinois; Dean C. M. Woodward, Washington University, St. Louis, Missouri; Director G. N. Carman, Lewis Institute, Chicago, Illinois; President George E. MacLean, State University of Iowa, Iowa City, Iowa; and Professor Clarence A. Waldo, Purdue University, Lafayette, Indiana.

PRINCIPAL LESLIE:

As regards the implication which we often hear that teachers are behind others in their appreciation and efforts to advance such subjects as manual training and domestic science, so far as I have observed, teachers are about the first persons in any community to appreciate the importance of the

manual arts and to urge that a place be given to their study and practice in our schools. As a result of this interest, they are too often called faddists, and are ridiculed for their impractical notions.

DIRECTOR CARMAN:

I think we all agree with Dr. Woodward in this estimate of the value of manual training to boys and girls, whatever their subsequent work may be, whose circumstances are such as to enable them to attend the high school. But there are other boys and girls whom we are in danger of leaving out of account because they are unwilling or unable to attend the high school. Many of them do not complete the work of the grammar grades. If the schools are to count for anything in supplying the demand for skilled industrial workers for the sake of the workers as well as the industries, we must offer instruction that is a preparation for some particular industrial vocation. If we are to keep these boys and girls in school, when they want to get out, so that they can do something and earn something, we must teach them something that satisfies their desire for activity and increases their earning capacity. This is just what Mrs. Woolman has done for girls in the New York Manhattan Trade School. This is what is contended for by those who investigated the condition of working boys and girls for the Massachusetts Industrial Commission. This is our justification for making clear the connection between educatien and vocation. The industrial efficiency of Germany today is largely due to the industrial education of her workers. With inferior national resources Ger-

many's supremacy is due to the fact that she has cultivated the talents of the young by teaching and training her workers. For the greatest resources of any nation are not its farms and mines and forests, but its boys and girls. Too many of our young people are dropping out of school to become errand boys and department store girls, and drift into unskilled and poorly paid industries. We should strive to check this waste of our resources.

PRESIDENT MACLEAN:

May I ask the gentleman who has given us such an able paper if agriculture, which was not mentioned in his paper, is an industry? And if so, how it should be related to the subjects of manual training and domestic science in industrial education? This is a living question in Iowa where even the legislature is considering the establishment of agricultural high schools.

As Chicago is in the front dooryard of one great farm in the Mississippi Valley, it seems as if this subject should be adverted to in a discussion here. Is there not danger that educators may not be as awake as business men and legislators to the rising problem of the place of agriculture in industrial education? Might it not afford a topic for an entire session of this association?

PROFESSOR WALDO:

There are and always will be many who can see little or no use in intellectual gymnastics and the formal side of education. But connect education through science, art, and industry with production and wealth and you have immediately interested every one. In our high schools and grades

this connection must be made with the common, every day experiences and activities of the pupils. In the cities it will be through the constructive trades and artistic products. In the country it must come through the fruits of farm labor.

This is the opportunity of the wide awake teacher to emulate the apostle who said "I am made all things to all men that I might by all means save some." May I illustrate? In two northern counties of Indiana, La Porte and Starke, the county superintendents under the direction of Purdue University organized among the boys contests in corn growing. Several hundred boys took part and proceeded according to the most modern methods of fertilization and seed selection. For the work a considerable sum of money was easily raised because it appealed directly to all the intelligent people. Various prizes were offered, usually some extra educational opportunity rather than money. In La Porte there was held a convention of the contestants, with speech-making and naming of awards. The average yield of corn per acre in the two counties was 38 bushels; while boys engaged in the contest showed an average of 84 bushels. As a result the schools of the counties were never before so efficient, so enthusiastic, nor showed such fine results. Tradition and ignorance no longer hold the people back. Scientific development and rapid progress are the order of the day. Make it evident that our schools have their thoroughly practical and useful side as well as their ideal, and the day is won for all education, higher as well lower. None of our schools will lack for equipment, teachers, and marked efficiency,

## SECOND SESSION, FRIDAY AFTERNOON

The Association was called to order at two o'clock p. m. by the President. He announced the report of the Commission on Accredited Schools by President Harry Pratt Judson of the University of Chicago, chairman of the committee. President Judson's report concerned itself with the work of the Commission and the work of the General Education Board, and was as follows:

*To the North Central Association of Colleges and Secondary Schools:*

The Association will understand that it has been the custom for a long time for the chairman of the commission on accredited schools to make a report informally and not in writing. In accordance with that method I shall state briefly some things today which should fall under three heads.

First: The Board of Inspectors has been occupied as usual with the study of secondary schools throughout the limits of the Association and presents today a recommendation. On the accredited list for the ensuing year some few schools which were in the list last year have been omitted; some because they do not conform to the conditions as they now stand, and a few because reports have not been received from them. On the whole, however, the list is increased in number. It is the opinion of the commission that the work of accrediting is satisfactory and is producing desirable results. As an illustration only I may say that one of the colleges in the limits of the Association has discontined its separate method of determining the qualification of candidates for admission and accepts the credits of

the North Central Association. I will call upon Professor Whitney, Chairman of the Board of Inspectors, to present a detailed report.

Professor Whitney then presented the following report:

## STANDARDS OF ADMISSION

The following consitute the standards of admission to the accredited list of the North Central Association of Colleges and Secondary Schools for the present year:

1. No school shall be accredited which does not require fifteen units, as defined by the Association, for graduation.

2. The minimum scholastic attainment of all high school teachers shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools, including special training in the subjects they teach, although such requirements shall not be construed as retroactive.

3. The number of daily periods of class-room instruction given by any one teacher should not exceed five, each to extend over at least forty minutes in the clear. (While the Association advises five periods, the Board of Inspectors will reject all schools having more than six recitation periods per day for any teacher.)

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught as outlined by the Association.

5. The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets,

school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

6. The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.

7. Wherever there is reasonable doubt concerning the efficiency of a school, the Association will accept that doubt as ground sufficient to justify rejection.

8. The Association will decline to consider any school whose teaching force consists of fewer than four teachers exclusive of the Superintendent.

9. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the inspector.

10. All schools whose records show an abnormal number of pupils per teacher, as based on average number belonging, even though they may technically meet all other requirements, are rejected. The Association recognizes thirty as a maximum.

11. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the Association.

12. The organ of communication between the accredited schools and the Secretary of the Commission for the purpose of distributing, collecting, and filing the annual reports of such schools and for

such other purposes as the Association may direct, is as follows:

a. In states having such an official, the Inspector of Schools appointed by the state university. b. In other states the Inspector of Schools appointed by state authority, or, if there be no such official, such person or persons as the Secretary of the Commission may select.

The Association is very conservative, believing that such action will eventually work to the highest interests of the schools and the Association. It aims to accredit only those schools which possess organization, teaching force, standards of scholarship, equipment, esprit de corps, etc., of such character as will unhesitatingly commend them to any educator, college or university in the North Central territory.

## ACCREDITED SCHOOLS

### COLORADO

Canon City
Cripple Creek
Denver:
  West Side
  North Side
Durango
Golden
Grand Junction
Greeley
Idaho Springs
Leadville
Longmont
Loveland
Trinidad

### ILLINOIS

Alton
Aurora:
  East
  West
Bloomington
Blue Island
Champaign
Chicago:
  Austin
  Calumet
  Curtis
  Englewood
  Hyde Park
  Jefferson
  John Marshall
  Joseph Medill
  Lake
  Lake View
  North West Div. (Tuley)
  R.T. Crane (ManT'g)
  Robert A. Waller
  South Chicago
  Wendell Phillips
  William McKinley
Chicago Heights
Clyde (Morton Tp.)
Danville
Decatur
DeKalb Tp.
Dixon
Elgin
Elgin Academy
Evanston Academy (N. W. Univ.)
Evanston Tp.
Francis W. Parker
Freeport
Harvey (ThorntonTp.)
Highland Park (Deerfield Tp.)
Joliet Tp.
Kankakee
Kewanee
LaGrange Tp.
LaSalle-Peru Tp.
Moline
New Trier Tp. (Kenilworth.)
Northwestern M.Acad.
Oak Park Tp.
Ottawa Tp.
Peoria
Polo
Pontiac Tp.
Princeton Tp.
Quincy

ILLINOIS (Cont'd)

Rockford
Rock Island
Savanna Tp.
Springfield
Sterling Tp.
Streator Tp.
Waukegan Tp.

INDIANA

Elkhart
Evansville
Fort Wayne
Goshen
Howe School (Lima)
Michigan City
Shortridge (Indianapolis.)
South Bend

IOWA

Boone
Burlington
Cedar Rapids
Clinton
Corning
Council Bluffs
Davenport
Denison
Des Moines:
  East
  North
  West
Dubuque
Fort Dodge
Grinnell
Ida Grove
Iowa City
Keokuk
Le Mars
Marshalltown
Mason City
Missouri Valley
Oskaloosa
Ottumwa
Red Oak
Sheldon
Sioux City
Vinton
Washington
Waterloo:
  East
  West

KANSAS

Arkansas City
Fort Scott
Iola
Junction City
Kansas City
Lawrence
Leavenworth
Sumner Co. (Wellington)
Topeka
Wichita

MICHIGAN

Adrian
Albion
Alpena
Ann Arbor
Battle Creek
Bay City (E.S.)
Bay City (W.S.)
Benton Harbor
Benton Harbor Col. Inst.
Bessemer
Cadillac
Calumet
Coldwater
Detroit:
  Central
  Delray
  Eastern
  Western
  Woodmere
  Home and Day
  University
Dowagiac
Escanaba
Ferris Institute
Flint
Grand Rapids
Hancock
Holland
Houghton
Ionia
Ironwood
Iron Mountain
Ishpeming
Jackson
Kalamazoo
Lake Linden
Lansing
Manistee
Manistique
Marshall
Marquette
Menominee
Mich. Mil. Academy
Michigan Seminary
Monroe
Muskegon
Mt. Clemens
Mt. Pleasant
Negaunee
Owosso
Pontiac
Port Huron
Saginaw, E. S.
Saginaw, W. S.
Sault Ste. Marie
South Haven
St. Johns
St. Joseph
Three Rivers
Travers City
Wyandotte

MINNESOTA

Albert Lea
Anoka
Austin
Crookston
Duluth Central
Faribault
Fergus Falls
Hastings
Little Falls
Mankato
Marshall
Minneapolis:
  Central
  East
  North
Montevideo
Northfield
Owatonna
Rochester
St. James
St. Paul:
  Central
  Humboldt
Stillwater
Virginia
Wilmar

MISSOURI

Blees Mil. Academy, (Macon)
Booneville
Carrollton

(MISSOURI (Cont'd)
Chillicothe
Drury College Academy
Kansas City:
Central
Manual Training
Westport
Kemper Mil. School
Kirkwood
Macon
Marysville
St. Louis:
Central
McKinley
Smith Academy
Yeatman
St. Joseph
Sedalia
Trenton
Webster Groves

NEBRASKA

Beatrice
Brownell Hall
Fremont
Grand Island
Hastings
Lincoln Academy
Lincoln
Omaha
South Omaha
York

NORTH DAKOTA

Fargo
Grand Forks

OHIO

Akron
Bellefontaine
Bowling Green
Canton
Chillicothe
Cincinnati:
Hughes
Walnut Hills
Woodward
Cleveland:
Central
East
Glenville
Lincoln
West
Columbus:
Central
East
North
South
Coshocton
Dayton
Delaware
East Cleveland
East Liverpool
Elyria
Findlay
Fostoria
Fremont
Gallipolis
Greenville
Hamilton
Hillsboro
Ironton
Kenton
Lakewood
Lancaster
Lima
London
Mansfield
Marion
Middletown
Mount Vernon
Newark
New Philadelphia
Oberlin
Oberlin Academy
Oxford Col. Acd. (Women)
Painesville
Piqua
Portsmouth
Salem
Sandusky
Sidney
Springfield
Steubenville
Toledo
Troy
Van Wert
Warren
Washington C. H.
Willoughby
Wooster
Xenia
Youngstown
Zanesville

SOUTH DAKOTA

Aberdeen
Deadwood
Mitchell
Watertown
Yankton

WISCONSIN

Antigo
Appleton
Ashland
Baraboo
Beaver Dam (Wayland Academy)
Beloit
Berlin
Chippewa Falls
Eau Claire
Elkhorn
Fond du Lac
Grand Rapids
Hartford
Janesville
Kenosha
La Crosse
Lake Geneva
Madison
Maniotowoc, North
Marinette
Marshfield
Menomonie
Merrill
Milwaukee:
East Division
South Division
West Division
Milwaukee-Downer Seminary
Oshkosh
Plymouth
Portage
Racine
Racine Col. Grammar School
Reedsburg
Ripon
Sheboygan
Stevens Point
Superior:
Blaine
Nelson Dewey
Tomah
Washburn
Waukesha
Waukesha (Carroll College Academy)
Waupaca
Wausau
Wauwatosa
Whitewater

It was voted to adopt the report of the Board of Inspectors, and to approve the changes made in the rules.

President Judson spoke further:

Second: The committee on accredited colleges, consisting of the Chairman and Secretary of the commission and of President Baker of the Colorado State University held some preliminary discussion upon the general discussion early in the year. New and interesting developments relating to colleges throughout the country, however, assumed such shape that it seemed best to the committee not to complete their study during the current year but to call the attention of the Association to these particular matters and request a continuance of the committee for another year, at the end of which time it is hoped an adequate report will be presented.

The matters in question relate to the work of the Carnegie Foundation for the advancement of teaching on the one hand, and of the General Education Board upon the other. Each of these has a very close relation to colleges within the limits of the North Central Association. It seems to the committee best, therefore, to have a brief presentation of the main facts relating to these great endowments and their use. Accordingly I shall ask President King of Oberlin College, and a member of the Board of Trustees of the Carnegie Foundation to make some statement as to the work of his Board.

President King then made the following statement:

I am glad to say a word concerning the work

of the Carnegie Foundation for the Advancement of Teaching, though I can only present facts already contained in the published report of the President of the Foundation, President Henry S. Pritchett.

The Carnegie Foundation for the Advancement of Teaching has for its immediate and present aim the giving of retiring allowances under certain conditions to professors in an accepted list of colleges and universities; though the charter of the Foundation makes it possible for it to engage in educational work of a much wider scope.

In determining the institutions which are to be included in its accepted list the trustees have adopted for the present an arbitrary *definition of what constitutes a college.* This definition is expressed in the rules of the Foundation as follows:

"An institution to be ranked as a college, must have at least six (6) professors giving their entire time to college and university work, a course of four full years in liberal arts and sciences, and should require for admission, not less than the usual four years of academic or high school preparation, or its equivalent, in addition to the pre-academic or grammar school studies."

Such an institution must also have an endowment of at least $200,000.

In order to judge what constitutes four years of academy or high school preparation the officers of the Foundation have made use of a plan commonly adopted by college entrance examination boards. By this plan college entrance requirements are designated in terms of units, a unit being a course of five periods weekly throughout an academic year of a preparatory school. Fourteen units

constitute the minimum amount of preparation which may be interpreted as "four years of academic or high school preparation". The definitions of units are in close accordance with the requirements of the College Entrance Examination Board.

Institutions whose professors are eligible for retiring allowances under the Carnegie Foundation are subject also to the following provision: "Provided, however, that the said retiring pensions shall be paid to such teachers only as are or have been connected with *institutions not under control of a sect* or which do not require their trustees, their officers, faculties or students (or a majority thereof) to belong to any specified sect, and which do not impose any theological test as a condition of entrance therein or of connection therewith."

In the practice of the Foundation, institutions are considered denominational that are under absolute denominational control and ownership; or institutions in the which governing body are appointed by and are directly responsible to a formal religious body; or institutions whose governing board must be confirmed by and must report to a religious organization; or institutions having no formal connection with a religious body, but which require either, through the provisions of their charters or by votes of their trustees, that a majority of their trustees, officers, or professors shall belong to a specified denomination. Besides these classes of institutions that are likely to be regarded as not meeting the undenominational test of the Foundation, there are institutions which have no formal connection with a denomination, but a strong sympathetic one, and yet which are generally looked upon as denom-

inational. There are cases in which question might arise concerning these; but in general they would probably not be regarded as on that account alone ineligible to the privileges of the Foundation.

The Foundation also provides retiring allowances for *widows* of professors in case the professor himself at the time of his death would have been eligible for a pension.

*Insititutions under governmental control,* while not definitely excluded by the terms of Mr. Carnegie's gift, have not hitherto been regarded as eligible to the privileges of the foundation. This matter has been carefully considered by the Board; and it seems unlikely at present at least, that the Foundation will undertake to give retiring allowances to members of faculties of state institutions.

The present income of the Foundation would enable it to carry perhaps twice as many institutions as it is now carrying.

*The retiring allowances are granted under the following rules:*

Any person sixty-five years of age who has had not less than fifteen years service as a professor, and who is at the time a professor in an accepted institution is eligible; as is also any person who has had a service of twenty-five years as a professor, and who is at the time a professor in an accepted institution.

The retiring allowance of a professor retiring at sixty-five after at least fifteen years of service as a professor is computed as follows:

(a) "For an active pay of sixteen hundred dollars or less, an allowance of one thousand dol-

lars, provided no retiring allowance shall exceed ninety per cent of the active pay.

(b) "For an active pay greater than sixteen hundred dollars the retiring allowance shall equal one thousand dollars, increased by fifty dollars for each one hundred dollars of active pay in excess of sixteen hundred dollars.

(c) "No retiring allowance shall exceed three thousand dollars."

The retiring allowance of a professor retiring after twenty-five years of professorial service is computed as follows:

(a) "For an active pay of sixteen hundred dollars or less, a retiring allowance of eight hundred dollars, provided that no retiring allowance shall exceed eighty per cent of the active pay.

(b) "For an active pay greater than sixteen hundred dollars the retiring allowance shall equal eight hundred dollars, increased by forty dollars for each one hundred dollars of active pay in excess of sixteen hundred dollars.

(c) "For each additional year of service above twenty-five, the retiring allowance shall be increased by one per cent of the active pay.

(d) "No retiring allowance shall exceed three thousand dollars."

The rules of the Foundation also enable it to recognize "individual professors of merit, or of distinguished service" in institutions not on the accepted list. "Such allowances cannot be granted to professors in institutions deemed to be under denominational control."

In the case of teachers in an accepted institution, the Foundation deals with the institution

direct, not the professor; the professor receiving his retiring allowance just as he has received his salary, through the Treasurer of the institution.

PRESIDENT JUDSON continued:

With regard to the General Education Board of which I am a member, it had been hoped to have here today the Secretary, Mr. Wallace Buttrick, who has been the active officer of the Board and whose statement of the work would be authoritative and interesting. As he is unable to be here, I will present a few facts.

The work of the Board falls under three heads, namely, agricultural education, the development of secondary schools, and the development of colleges.

The purpose of agricultural education as fostered by the Board is strictly educational. The situation is this. In certain southern states rural schools are either entirely lacking or entirely inadequate. For such schools to be superimposed by an outside agency would have little social or educational value. Such schools to be a real power should be the product of the neighborhood, supported by the neighborhood because desired by the neighborhood. On investigation of the causes for the inadequate condition of these schools, it appears at once that the main reason is lack of ability to pay suitable taxes; in other words, the farmers are too poor to sustain local schools. The reason of this poverty, in the next place, appears to be the failure to use the most advanced methods of agriculture. It is believed by the Board that by adopting better modes of farming the economic condition of the poor farmers throughout many of

the southern states may be greatly improved. If this comes to be the case, it will result in greater power to pay taxes and in the ability and in the desire to sustain local schools. With this end in view the Board has been aiding in the extension of a knowledge of scientific farming throughout a number of the southern states with very encouraging results. Instead of trying to draw farmers to a central point for instruction, a number of farmers have been induced to try experiments under the direction of suitable agricultural authorities. Several thousand farmers in this way are really converting their farms into experiment stations in agriculture. They learn rapidly the practical results of the new methods and each such agency is a center of information which aids the entire vicinity. The Board believes that in this way it is doing a work which in the long run will prove useful to elementary education.

A number of southern states have heretofore been lacking in adequate systems of secondary schools. The board has been cooperating with the educational authorities in several states with a view to securing suitable legislation to remedy this difficulty. The results have been marked, and state after state has recently adopted a system of education which seems likely to prove of great importance in linking the elementary school with the college and the state university.

The work of the Board with regard to colleges is not limited to the south but is intended to cover the entire union. Thus far gifts have been made only for endowment. It has been thought wise on the whole to give this endowment as part of a con-

siderably larger sum to be raised. In this way the funds given by the Board are really multiplied several fold. Further it has been thought wise thus far to limit grants to colleges which seem likely to have adequate backing and a reasonable ground for the future. Of course only a beginning has been made. The Secretary informs me that since the late magnificant gift of thirty-two million dollars by Mr. Rockefeller more than four hundred colleges have filed applications. It will be desirable for some time to come that these applications should be filed in writing in order that the Secretary and his office staff may have opportunity to consider them and select from them those that need further consultation. I feel sure that the great funds and the large purposes of the Board in the end will be of exceeding value to the cause of higher education throughout the country. Every state should have a cluster of colleges, suitably situated, well equipped and not pressed by poverty.

Professor C. R. Mann of the University of Chicago then read the following paper on:

## THE MEANING OF THE MOVEMENT FOR THE REFORM OF SCIENCE TEACHING.

C. R. MANN, UNIVERSITY OF CHICAGO, CHICAGO, ILLINOIS

The past fifteen years have witessed such a remarkable development of our secondary schools, that today the number of pupils attending these schools is alarger per cent of the total population in the United States than it is in any other country. Nor is this development confined to a mere increase in the number of students. Courses of study have been multiplied; the curriculum has been enriched

by the addition of numerous subjects previously unknown to these schools; and the equipment and methods of teaching have improved enormously, particularly in the direction of introducing laboratory work.

This wonderful advance is not due solely to econonomic conditions, such as national prosperity; nor yet can it be ascribed entirely to the firm belief of the people in education: it seems to be due in large measure to the educational ideals that have been gradually extending their influence, and expanding into yet more fruitful ideals, since they were crystalized in that epoch-making report of the Committee of Ten.

The present agitation concerning the teaching of science is a natural product of present conditions in education; and, therefore, if we would understand the meaning of this agitation, we must first recall some passages from that report, and then attempt to follow the ideas there expressed down to the present time.

I. As concerns science, the most important ideal in the report of the Committee of Ten is that stated on page 51, namely: "The secondary schools of the United States, taken as a whole, do not exist for the purpose of preparing boys and girls for colleges. Their main function is to prepare for the duties of life, etc. * * The preparation of a few pupils for college or scientific school should in the ordinary secondary school be the incidental, not the principal object. At the same time, it is obviously desirable that the colleges and scientific schools should be accessible to all boys and girls who have completed creditably the secondary

school course. * * In preparing the programs of Table III, the committee had in mind that the requirements for admission to college might, for schools which adopt a program derived from that table, be simplified to a considerable extent, though not reduced."

Has this ideal been realized? Have the programs of the secondary school yet been framed primarily to prepare the boys and girls for their later, larger life? Have there yet been developed methods of instruction which, in the light of modern psychological investigation, are known to be best suited to meet the present life needs of the pupils? Has experiment been invoked to prove that the methods in use are the best ones attainable from the point of view of the secondary school, not of the college?

The next important step with reference to this subject was taken by the Department of Secondary Education of the National Educational Association when it appointed its committee on College Entrance Requirements. The conditions under which this committee was appointed were these (Report, page 1):

"At the meeting of the Department of Secondary Education of the National Educational Association at Denver, in 1895, a paper was read by Professor William Carey Jones, of the University of California, on the subject, 'The Prospects of Federal Educational Union.' Discussion of this paper led to the motion for the appointment of a committee to report a plan of action on the basis of Professor Jones' paper.

The committee presented the following report:

Whereas, The most pressing need *for higher education* in this country is a better understanding between the secondary schools and the colleges and universities in regard to requirements for admission; therefore

Resolved, That the Department of Secondary Education appoint a committee of five, * * * * whose duty it shall be to report at the next annual meeting a plan for the accomplishment of this end, so urgently demanded by the interests of *higher education.*"

On page 9 of the report of this Committee on College Entrance Requirements, it is stated that the committee planned to do certain things "all with a view to the ultimate determination of what should constitute a normal requirement in each of the subjects set for the admission to college."

Again, on page 43 we read: "Acting on these lines, the committee has devoted its chief energies, through several years, to securing the formulation of satisfactory courses of study which should serve as units, or norms, worthy of national acceptance. * * * * In so far as the courses of study representing national units, or norms, may be adopted by the schools and colleges, great simplification will result in the subject of college entrance requirements, the subject specifically referred to this committee."

These passages from the report of this committee are introduced, not at all with the idea of belittling the very important work done by this committee, but merely to make clear one point which is of importance to the present discussion ; namely, that the whole subject of secondary school units or

norms was approached by it from the college entrance requirement point of view. The original committee and the sub-committees that framed this report consisted of seventy-two college men and thirty-four highschool principals and teachers. It was doubtless best at that time to present the new units to the schools in this form, in order to insure their speedy introduction. Certainly no one can deny that the college entrance requirements in general, and the report of this committee in particular, have been among the most powerful influences for good in the rapid uplifting of the secondary schools. For example, laboratory work in physics was early introduced into the schools largely because first Harvard, and then the other colleges, demanded it as an entrance requirement; and from this beginning, laboratory work in the other sciences has not only been generally introduced, but has now come to be regarded as a *sine qua non* of science teaching,—a perfectly evident educational advance.

The various stages of the advance from the chaotic system of entrance requirements and the uneven standards of the schools of fifteen years ago to the present fairly uniform system thus seem to have been these: 1. The establishment of type courses by the Committee of Ten, the emphasis as regards methods of teaching being placed by them on preparation for life. 2. The establishment for each subject of national units, or norms, from which thg type courses could be built up, these units beine framed to a considerable extent from the college entrance requirement point of view. 3. The gradual adoption and modification of the recommendations of these two committees, leading both to a

marked advance in the efficiency of the secondary schools, and to a decided broadening and increase in the flexibility of the college entrance requirements.

While this progress has been going on steadily on this mainly administrative side, educational theory has also advanced. In his admirable book on the Making of our Middle Schools (1903), Professor E. E. Brown rightly says (page 436): "The keynote of current educational thought seems to have been sounded by Professor John Dewey in his saying that, *The school is not preparation for life, it is life.* Education is to provide for the future needs of the pupils by providing for their real present needs. One of the most notable and comprehensive tendencies of secondary education, and of all education, is accordingly the tendency to seek an understanding of the living growing persons who go to school; and to treat them in a way to promote their healthy growth. This doctrine is sound at bottom. Persons are the most precious things in all the world; and child persons are as precious as persons fully matured. In this view we have true humanism."

It seems fair to ask, then, whether the time has not now come to begin a discussion of the secondary school program, and of the methods of presenting the subject matter in it, from the point of view of the school regarding the school as the agency devised for the purpose not only of preparing boys and girls for the duties of later life, but also for the purpose of being the center of their present intellectual and social life. This ideal, it will be noticed, is a combination of the one defined by the

Committee of Ten with that stated by Professor Brown in the passage just quoted: this is one of the ideals that has not yet received much attention, much less been realized in practice; it is for a further realization of this ideal, so far as science is concerned, that the science teachers have started the present agitation. This, then, is the first great reason for the existence of this movement.

II. Having thus defined this first purpose of this movement, the next question is: How shall we proceed to accomplish it? It is now no longer necessary to work out type programs,—this has already been done by the Committee of Ten. Nor must we fight for more time for science, both because a fair proportion of time is already allotted to this work in the majority of schools, and because a lengthening of the time devoted to science as at present treated might injure rather than benefit the cause. Nor yet do we have materially to change the definitions of the units as given by the Committee on College Entrance Requirements. These administrative parts of the problem have already been so well solved that they no longer require lengthy consideration. *The real and most vital problem now is that of getting teachers who are competent to teach the sciences effectively.*

Both the reports that have been mentioned speak of this point. Of this the Committee of Ten say (page 17): "Persons who read all the appended reports will observe the frequent occurrence of the statement that in order to introduce the changes recommended, teachers more highly trained will be needed in both the elementary and the secondary schools." In order to supply this defect, this committee recommend three things; namely, 1. The

encouragement of attendance at summer schools by the payment by school authorities of tuition and traveling expenses for those who go. 2. That colleges and normal schools offer free courses for teachers, for the benefit of those who work in their vicinity. 3. That the superintendent, or some teacher who has shown himself to be particularly efficient, give instruction to the teachers under each board's control.

The committee on College Entrance Requirements treat this problem in Resolution III, page 30. Their recommendation is: "That the teachers in the secondary schools should be college graduates, or have the equivalent of a college education."

It is perfectly clear that neither of these committees has gone very far in the solution of this all-important problem. It is true that two of the Conferences, namely, that on natural history, and that on geography, made, to the Committee of Ten, numerous valuable suggestions as to pedagogical methods and principles. Also the reports of the sub-committees on physical geography, chemistry, and botany, as printed in the Report of the Committee on College Entrance Requirements, contain some material of this sort. But all must agree that even these suggestions, valuable though they be, are not adequate to the task of teaching even a "college graduate" to teach efficiently, unless he has also had training in education, both theoretical and practical. Therefore this problem of the adequate preparation of teachers is the second ideal which was suggested by the Committee of Ten, but which has not yet been reached in practice. The further realization of this ideal, as far as science is concerned, is thus

a second reason for the existence of the present movement for better science teaching. The science teachers must specifically state what the essential, determining characteristics of their species are.

III. But no sooner has the problem of specifying the requirements that teachers should meet been solved, than there arises the question as to how those requirements shall be enforced. Shall the teacher be submitted to examination by any and every school board to whom he applies for a position? Or shall he be obliged to obtain a *licentia docendi*, as has been the custom in Europe since schools have existed? If so, who shall issue such licenses, each city superintendent, the county superintendent, or the state board of education? Shall a certificate issued at one place be recognized at another? These, and many other questions of like nature, are at present pressing for solution. These questions have not been treated at all in either of the reports that have been mentioned, although some of them were proposed in the paper by Professor Jones, which was responsible for the appointment of the Committee on College Entrance Requirements. Some of them have been handled in the report of the Committee on Certification of Teachers, which was presented to the National Educational Association in 1899 (School Review, 1899), and more recently by Professor E. P. Cubberley in his monograph on the Certification of Teachers (Part II of the Fifth Yearbook of the National Society for the Scientific Study of Education).

This, then, is a third ideal whose further realization, as far as science is concerned, is the aim of

this movement among science teachers. And why should the teacher not have to be formally "admitted to the school" before teaching, even as the lawyer has to be formally "admitted to the bar" before practicing? And why are we all willing to sit complacently by while some bungling teacher administers sedative "dope", which often causes complete atrophy of some faculty of a child's mind, when we would shrink in horror at the thought of allowing an unlicensed doctor to administer drugs to the physical person of one of them? If teaching is really a dignified profession, then why not respect it enough ourselves to demand that those who would enter it should show the necessary qualifications for the work? Then, and then only, will we teachers rise in the respect of the public to the point where our salaries will begin to rise too.

IV. There is yet a fourth purpose in this work of the science teachers. Not only must the problem of the presentation of science be discussed from the point of view of youthful life; not only must there be made demands on the teacher before he is allowed to teach science; not only must there be a worthy method of formally entering the profession; but also, the qualified teachers must study together the problem of so broadening the scope and the methods of their teaching, that science will eventually come into its true heritage in the educational world. What does this mean, and how may it be done?

It is undoubtedly true that the study of science in the schools is popularly believed to be a pursuit adapted solely to the specialist. Have you never heard a parent say concerning his child's choice of

studies, "I do not care to have my child study physics or geology, because he is not going into scientific work as a profession"? Or again, have you never met a student who said, in effect, "I do not care to study chemistry or mechanics, because I am not going to be a scientist"?

On the other hand, the popular mind has long accorded to the study of the languages, of history, and of mathematics an educational value wholly apart from, and in some cases in addition to, their possible future use. Those of us who have advocated the introduction of more science into the curriculum have been accused of fostering commercialism and "ideals of the market place" in young brains, because scientific knowledge is frequently useful and may have a market value; it being tacitly assumed that these were its chief claims to recognition in the educational system. For this reason, engineering students, who are supposed to be studying with a utilitarian end in view, are urged to spend several years poring over the classics and the modern languages and literature in the hope of acquiring some small smattering of the thing called "culture"—a thing which, as they say, may be acquired from these studies, but never from the sciences.

In this connection it is interesting to note that, when it was first introduced into the schools, Latin itself was a strictly utilitarian subject. In the early universities, from about 1000 to 1400 A. D., that language was the university vernacular. Hence all students under the arts faculty were obliged to study it, very much as our modern students are obliged to study English, in order that they might be

able to follow the work. The bulk of the curriculum was then made up of didactics, logic, mathematics, astronomy, and the philosophy and science of Aristotle. Classical literature was unknown. When, however, Aristotle's philosophy was discredited by modern science, the study of the great literatures of classical antiquity came to be regarded as the most efficient broadening studies. They became the fundamental studies in America because Harvard, in accordance with the educational conceptions prevalent at the time of its founding, made them the corner stone of its curriculum "dreading to leave an illiterate ministry to the churches, when our present ministers shall lie in the dust", as an ancient document puts it.

Nor was modern science at that time sufficiently well established to take a prominent part in education. In the early years at Harvard physics was taught two fifteen minute periods a week. But now conditions have changed; science has become the most prominent factor in our life and thoughts, —not only on the side of technical achievement, but also on that of thought processes and social life. This trend of thought toward the methods of science is now so far advanced, that President Eliot is reported to have declared that theology is now suffering from its failure to adopt and use those methods; and President Pritchett has stated that theological study should be made a branch of applied science, thereby classifying the divinity school with the medical and engineering schools— why not also with the schools of education?—in the university of the near future.

Encouraged by these signs of the recent drift

of opinion toward the adequate recognition of the power of science so to educate men that they would be not only well informed about the technique of their environment, but also thoroughly broad and cultured, science teachers have been gradually waking up to the increased responsibilities of their profession. This fact is shown by the recent establishment of a considerable number of science teachers' associations, whose work consists in discussing the problems of science teaching.

It is not so very long since most educators believed that the tree of culture was indigenous to the territory of the humanities and would flourish only in their soil. They then believed, as the popular mind seems yet to believe, that only useful things, like potatoes, onions, and cabbages, would grow in scientific soil. So the garden of learning was partitioned by a high wall, on one side of which, surrounding the tree of culture, grew only those plants that were primarily beautiful and inspiring—the humanities: while on the other side grew only those plants that were primarily neither beautiful nor ideal, but only useful—the sciences. It was further conceded that neither species would flourish well on the other side of the wall; and, in particular, it was regarded as certain that the useful plants would not flourish under the shade of the tree of culture, but required for their support the bright sunshine of the world about them.

Fortunately, this state of things no longer exists. Some good wind blew a few seeds from the garden of the sciences over into that of the humanities: and they grew. The humanities began to realize that there was a training in mental power

through the use of the scientific method going on over the wall. They began to sit up and pay attention, and have finally ended by claiming as their own the greatest of science's former claims to a position in the curriculum; namely, training in scientific methods of observation and thought. The result is that we are now told that research in the humanities, even in the classics, leads to the same exercise in scientific methods as does research in the sciences—barring only the acquirement of utilitarian knowledge and of the ability to predict. Thus the humanities have not been slow to recognize the power and the value of the methods of science, and to try to adapt them to their own work.

And this has been a good thing all around. The humanities are better because of it, and the manipulation of that great and mighty tool of science,—its method,—is gradually coming to be understood outside of strictly scientific circles. But has science taken anything from the humanities in return for this? Have any seeds from the garden of the humanities blown over the wall and taken root on the scientific side. Not to any appreciable extent as yet. But the wall between the gardens is getting old and feeble; and the other night a few bad boys broke a hole in it, cut a few sprouts from the tree of culture, and planted them on the scientific side. These sprouts seem to be flourishing finely. And why should they not, since the gardens are adjacent, and the soil on both sides of the wall is all part of the great human experience?

This may serve to make clear the fourth ideal for whose further realization the science teachers are now striving. They wish to try to make good

the claim that modern science, when properly presented, is able to give an education that is at least no less broad and valuable than that derived from the humanities. They want to find out what are the broadening and vitalizing educational elements of the humanities. They are trying to understand why science has neglected these elements until now, and how they may be adapted to her use. For they now begin to see clearly that there are not two separate, sharply contrasted bodies of information, the learning of one or the other of which constitutes education; but rather, that there is one great, tangled mass, consisting of human experiences and human interpretations of human experiences, and that he alone is broadly educated who is able to disintangle and perceive the beauty in some tiny fraction of that mass, without at the same time severing its connection with the whole of which it is but a part.

The teachers in America are not alone in this. That the problem is not a local or an ephemeral one is shown by the fact that this movement for its solution is not limited to a small section of any country. It is an international movement. Thus in Germany, in 1902, the German government issued a decree stating that henceforth the graduation certificates of any one of the three types of German secondary school would be accepted by the government as standing for equal educational attainments. Entrance to the Universities of Germany is now granted on the diploma of the science schools, as well as on that of the classical ones.

The effect of this decree was to arouse the science teachers to their opportunities and to their

responsibilities. They at once started an earnest and thorough investigation of the present methods of teaching science, and of the place of science in the curriculum. This investigation has been conducted by a commission of twelve members appointed by the German Association of Physicians and Natural Scientists. This commission has issued two reports in which are set forth the principles of correct science teaching, together with syllabi for the various sciences and a schedule of hours for the different schools.

In France, in like manner, the government decreed, in 1902, that but one kind of bachelor's degree, the B. A., should hereafter be given in France. This amounts to recognizing the largely scientific courses as of equal educational value with the largely classical and literary courses. The result in this case was to call forth a series of essays by some of the leading French scientists on the proper methods of teaching science. As one of their number has stated it, the effect of this decree on the sciences is that instead of being "treated as materials for examinations, they may now become instruments of culture." The whole agitation there has had the effect of greatly increasing the power of science in the schools. Thus Germany and France have officially recognized the fact that scientific study should have, over and above any utilitarian returns, an educational value at least as great as that possessed by the humanities.

If it is true that science is popularly believed to be technical and utilitarian, it is but fair to ask whether this belief is well-grounded. There can be little doubt in the mind of anyone who looks through

the published texts and manuals, intended to be used for elementary instruction in science, that this popular belief is well-grounded. The usual high school texts in science are condensed and highly peptonized editions of the advanced treatises. They are essentially adult in their methods of presenting the subject, and yet have omitted from them many of the parts that are particularly interesting to adults. Hence they are too much for boys, and not enough for men. They are intended to prepare the way for the advanced treatises as far as subject matter goes; hence they have been of necessity technical, since none but a specialist tackles the treatises. Therefore, the present condition of the popular mind is due to a combination of the action of that antique doctrine, which asserted that the earlier stages of education were but preparation for more advanced stages, instead of being life, with an enthusiasm for science, which led its devotees to try adequately to prepare the younger generation for future joy in science by imparting to it as much of the great wealth of adult scientific knowledge as was possible in the limited time at their disposal.

But now that pernicious doctrine has departed, and the science enthusiasts are beginning to see that the greatest educational results cannot be attained by science in that way. It is gradually becoming clear that, for purposes of teaching, science must be treated as a part of human experience. It must be so closely linked with the interests and problems of the daily life as to become part of it; it must be shown to have arisen for the purpose of meeting human needs, and to have played a very important part in the development of

our present social life; and the symbolic value to our intellectual and spiritual life of its theoretical models and pictures must be turned to account, even as Froebel has made educational use of the children's play. How all this may be worked out gradually and in a satisfactory manner is the last great excuse for the existence of the agitation among science teachers.

All this may be summed up in the words of Professor E. E. Brown, who, on casting a prophetic eye toward the future of the secondary schools in the last chapter of his book on the Making of our Middle Schools, is moved to say: "So we may look to see humanism as dominant in the schools of the twentieth century as it was in those of the sixteenth; but a new humanism, leaning more and more on science, mindful of the past, patriotic in the present, and looking hopefully forward to the larger human interests that have already begun to be."

The report of the committees on the definition of the units in secondary science was presented as follows:

## JOINT REPORT OF THE SIX COMMITTEES ON THE DEFINITION OF THE UNITS IN SECONDARY SCIENCE.

*To the North Central Association of Colleges and Secondary Schools:—*

GENTLEMEN: When instruction in science was introduced into the secondary schools, great claims were made for it as an instrument of education. These claims resulted in the very general introduction of science courses, and in the expenditure of

much time and money in carrying them forward. Much good has resulted from this work, but it is thought that more attention needs to be given to the purposes and means of science instruction if the most valuable results are to be obtained. Little need be said concerning those phases of the work that are being well done now, but attention should rather be directed to those points which may be bettered.

Believing that the shortcomings of the science teaching are due both to general conditions, which affect all the sciences in the same way, and to special conditions, which affect each science in a way peculiar to it, the six committees that were appointed last year to define the units of high-school work in Mathematics, Physics, Chemistry, Earth Science, Botany and Zoölogy respectively, beg to present the following joint report, which deals with the general conditions. Separate reports, each treating of the peculiar conditions that prevail in the particular subject assigned to each of the special committees will be presented at a future meeting.

When poor results are obtained from the study of science, they are due to one, or to both, of the following causes: namely, (1) misconceptions on the part of both the teacher and the school authorities concerning the meaning and the nature of science and the purposes of teaching science; and (2) faults in the system of school administration. In enumerating the several particular points under these two heads, the committees recognize gladly that not all of these criticisms apply to all the science work in any one school, but believe that one or

more of them will be found to apply in some of the science work in every school.

I. Under the first of the general heads just mentioned, the following misconceptions are pointed out as being the most damaging to the teaching of the elementary phases of science:

1. The notion that the acquisition of knowledge is the chief end of science teaching, in contradistinction to the idea that in the process of acquiring scientific knowledge there should be developed in the student the proper habits of acquisition, to be used in problems yet unsolved, and a right attitude toward knowledge in general. The subject-matter used in the science courses furnishes the opportunity of acquiring a considerable amount of valuable knowledge; but the highly important thing is that it be so presented as to foster the development of the proper attitude of mind. In elementary science courses, this latter end usually involves the former, while the reverse is not necessarily true. The best educational results of science teaching are secured only when topics are recognized as problems and treated accordingly. This misconception leads examining boards to expect mastery of subject-matter only from the student, and often forces the teacher to present his science in a deductive and authoritative way, and to teach by didactic methods which are quite at variance with the spirit of science.

2. The notion that the laws of science are final, in contradistinction to the idea that a scientific law is some man's interpretation of an unvarying phenomenon of Nature. This misconception leads the teacher to try to make the pupil verify another man's interpretation of phenomena, instead of allowing him to make his own interpretation. In this way again thinking power and the development of the creative imagination is sacrificed to memory drill.

3. The notion that the elementary science teaching, like the more advanced, should lead to an ability to describe modern scientific theories and up-to-date speculations, in contradistinction to the idea that it should develop a mastery over facts and their relations, a power of interpreting those relations in theories and hypotheses, and ability to apply the knowledge thus acquired. This misconception leads the student, who could not run a furnace or describe a heating plant intelligently, yet to believe that he knows something about heat, because he has been taught to define it as the kinetic energy of the molecules. This fallacy is responsible for the too early introduction of

many abstract concepts, and the consequent deadening of the ability to perceive concrete realities, to see relationships among them, and to organize them by means of theories into more comprehensive groups.

4. Another misconception is that which leads the teacher to emphasize too early rigor and logic, at the expense of true scientific intuition and imagination. The pupil is a victim of this fallacy when he is required to prove something which he recognizes at once as true; as, for example, that all straight angles are equal. It is vigor, not rigor, that is needed in the elementary work.

5. A final serious fault in the present teaching of science is the failure to use the wealth of historical matter that is available. The educational value of a course in science may be greatly increased by studying the stories of her great men and discussing her services to mankind.

II. Under the second head, the following faults in school organization may be mentioned as especially harmful to the science teaching:

1. The break that still exists between the high-school and the college, due to a lack of mutual understanding between the high-school and the college teacher, and leaving the high-school teacher to frame his course to fit a set of requirements that are seldom in harmony with the requirements set by the needs and the natures of the high-school pupils.

2. The assignment of the work of teaching science to teachers who are not suitably prepared for it.

3. The failure of school authorities to recognize the fact that the preparation of demonstration lectures, the care of laboratory apparatus, and the inspection of note books require an enormous amount of time and energy over and above that required for the work in the library and the literature of the subject, which latter work the science teacher has in common with all the teachers of the other subjects. School authorities also fail to recognize the fact that an hour spent in laboratory teaching requires of the teacher as much preparation and as great an expenditure of energy as an average hour spent in classroom instruction.

4. The failure of the school authorities to recognize the fact that double periods are absolutely essential for laboratory work, whether in the laboratory or in the field.

5. The assignment of too many pupils to one laboratory section in charge of one instructor.

6. The lack of a mutual understanding of the aims and purposes of science instruction between the high-school teachers and those who conduct the Nature-Study work in the grades.

7. The fact that teachers have frequently failed to realize that the conduct of a class offers numerous problems in solving which the teacher could, with great advantage to himself and his class, both contribute largely to finding the right principles of elementary science teaching, and satisfy his own longing for the opportunity of carrying on an original investigation.

III. In consideration of the facts just set forth, the six aforementioned committees hereby unite in recommending to this association the following action:

That the duties of each of these six committees be enlarged to include:

1. The formulation of a set of general principles that should assist the teacher in properly presenting science to pupils of high-school and of college age.

2. The collection of a bibliography of historical, pedagogical, and other books that would assist the teacher to a better comprehension of the proper methods of teaching science.

3. The working out of a general outline of a two, three, or four years' course in each of the sciences, or in several conjointly; the courses to be so arranged that part could be given in the high-school, and part in college, with a minimum of repetition.

4. The definition for each science of the minimum requirement that the teacher must meet before he is allowed to teach that science, including the question of the requirement of higher degrees of the teacher.

5. The question of the state certification of high school and of college teachers.

6. The definition of the maximum of hours per week that a science teacher may reasonably be expected to teach in each of the sciences.

A preliminary draft of this report was submitted to all of the one hundred and ten members of the six science committees, fifty-nine of whom have responded. These responses have resulted in the

issuance of the present report, which embodies some few modifications of the preliminary report.

Respectfully submitted,

O. W. CALDWELL, Botany,
State Normal School, Charleston, Ill.

C. E. COMSTOCK, Mathematics,
Bradley Polytechnic, Peoria, Ill.

H. E. GRIFFITH, Chemistry,
Knox College, Galesburg, Ill.

C. R. MANN, Physics,
University of Chicago.

C. E. PEET, Physical Geography,
Lewis Institute, Chicago, Ill.

J. REIGHARD, Zoölogy,
University of Michigan, Ann Arbor, Mich.

Dean C. M. Woodward of Washington University then presented the following preliminary report of the Committee on the Definition of a Unit in Manual Training:

## PRELIMINARY REPORT OF THE COMMITTEE ON SHOP-WORK AND DRAWING IN SECONDARY SCHOOLS

Five members of your committee appointed a year ago to formulate and submit definitions of units of work in the two departments of manual training, met yesterday to compare notes and to prepare at least a preliminary report. In spite of the fact that manual training is relatively new, and no committee of ten or fifteen has ever formulated its definitions, your committee are in substantial agreement.

When we look into the condition of our high

schools in the Central West, we find great diversity. The city schools make one class and the rural high schools another class—and we see at once that what is possible and reasonable for the former, is generally beyond the ability of the latter in the way of installing and maintaining manual training. Fortunately, the greater includes the less, and a school which cannot offer and deliver all that we define below, can, at least, go as far in that direction as its circumstances will allow.

We have, therefore, defined shop-work and drawing, as it exists, or should exist, in a well-organized and fully equipped city manual training high school. If for any reason a high school undertakes less than the full amount we specify, we recommend that it take up subjects in the order we name them and cover the ground thoroughly, as far as it goes. A high school is not, and can not be, a high-grade technical school, and nothing is gained by skipping the broad foundations of manual and graphic culture and attempting prematurely to do engineering work.

The committee do not feel called upon to defend, by arguments, their estimate of the proper allowance of time and credit to shop-work and drawing, nor the content of their definitions, though successful defense were easy.

The committee recommend that a manual training, or a mechanic arts, high school, covering four full years, should be at liberty to devote two-fifths of the school hours to shop-work and drawing; that is to say, twelve hours (or periods) per week on the average should be allowed, eight to shop-work and four to drawing. The minimum time given

per year in order to count as a "unit" should not be less than the equivalent of 250 hours of sixty minutes each. No superior limit is given, but additional hours should not receive additional credit. If then the full number of units in a high school course be reckoned as sixteen, it should be possible for a boy desiring and electing it, to take six units in manual training, provided he takes ten units of academic work.

### Syllabus of Units in Shop-work.

#### *1. Bench Work in Wood.*

The theory and correct use of common tools, each being illustrated in its turn by one or more carefully selected exercises. Incidentally, the proper method of grinding and oil-stoning an edge-tool should be taught and learned; methods of laying out work from the use of figured drawings; methods of securely uniting parts by joints of various kinds—mortise-and-tenon, nailing, screwing, gluing, doweling, etc.; polishing, shellacing, staining, etc.; the use of wood-carving tools, engraving, relief carving and inlaying. All models and exercises should be made from drawings giving exact dimensions. These should be frequent synthetic constructions which embody the elements, as they are mastered.

Preferably, these constructions should be useful articles, well-proportioned, and some should admit of surface ornamentation. Soft woods should be followed by hard woods and the qualities of each should be noted.

*2. Wood Turning and Elementary Metal Work.*

The theory of turning, the relation of grain to cutting edges ; practice in turning between centers, face-plate, and chuck turning; free curves, convex and concave; the construction of boxes, trays, and art forms, using soft and hard woods; built-up stock; a construction involving turning and joinery.

*Metal Working.*

Working in a variety of metals, including cast-iron, steel, brass, tin, zinc, and copper; the care and use of the hand lathe and fundamental hand tools of metal working, specifically as follows:

Chipping, filing, fitting, drilling, hand-tool turning, tap and die work, hardening and tempering steel, metal spinning, construction in sheet-metal; raising, soldering, and brazing.

*3. Pattern Making, Molding and Forging.*

The theory and use of patterns, how built, how divided, and why ; pattern-making, bench-molding, of simple and complex patterns; theory and use of cores, construction of cores and core prints ; casting with plaster, lead or alloys; the final piece being hollow-work (like a steam cylinder with ports, etc.) made from original drawings.

*Forging—Iron and Steel.*

Construction and management of the forge—fundamental processes; drawing, up-setting, bending, punching, splitting, welding, hardening; shaping steel under the hammer; tempering of different grades; the construction of chains, hooks and forge tools and wrought-iron articles from original or selected designs; finally the manufacture of a set of

standard steel lathe tools. In all exercises the sequence of steps is a matter of great importance.

4. *Bench and Machine Metal-Fitting, one unit.*

Centering for turning between centers; theory of metal-turning; forms of cutting tools and tool-grinding; turning cast-iron, wrought-iron, steel, and brass; use of oil, when needed; relation of speed to heat developed; use of taps and dies; screw-cutting; chuck-work, mandrill and face-plate work; drilling, slotting, planing, gear-cutting, and special work on the milling machine. Having mastered the elements, each student should combine more or less of such elements in a construction, made in accordance with original or selected drawings.

Before leaving the subject of shop-work, it may be well to submit a few suggestions to teachers of less experience than the members of this committee, in regard to methods of instruction:

1. The exposition of a tool and the demonstration of a process should be before the entire section of pupils conveniently seated so as to see all the teacher does, and hear all that he says.

2. The shop-period of first-year boys ought not to exceed one hundred minutes in length; but third and fourth year pupils can profitably have longer, but less frequent shop-periods; however, those periods should never exceed one hundred and eighty minutes.

3. Pupils should never be left to find out for themselves the proper ways of using a tool. The correct ways should be clearly and fully shown and explained. The use of a wrong tool, and the adop-

tion of an illogical or unscientific procedure should at once be checked, and the error should be plainly pointed out.

### Syllabus of the Drawing Units.

*First half unit.*

Freehand sketches and mechanical drawings of simple objects or machine parts in orthographic projection. Top, front, end, and sectional views.

Freehand lettering.

Tracing.

Blue printing.

*Second half unit.*

Elementary problems in third-angle projection. Representation of the point, line, and plane sections, intersections and developments.

Working drawings of objects to be made in the shop.

Isometric and cabinet drawing.

Simple architectural drawings, plans, elevations, and details.

*Third half unit.*

Mechanical perspective.

Freehand drawing in perspective.

Construction of conic sections and helix.

Machine drawing.

Line Shading.

Tinting.

*Fourth half unit.*

Architectural drawing. A study of historic ornament.

Mechanical lettering.

The undersigned submit the above as a pre-

liminary statement of definitions in two important subjects of shop-work and drawing. We do not regard them as final, and we wish no one to regard them as a finalty. They are open to examination and improvement, and we invite suggestions from teachers. Another year, the committee should be prepared to make changes and additions of great value.

Respectfully submitted, signed by the five members present:

C. M. WOODWARD,
G. N. CARMAN,
CHAS. A. BENNETT,
J. A. PHILLIPS,
C. H. BAILEY.

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The Commission on Accredited Schools reported progress. It was voted that the Association approve the report:

The following standing committees on definitions of units were continued by the Board of Inspectors for the coming year:

ENGLISH.

F. N. Scott (Chairman) Professor of Rhetoric, University of Michigan.
University of Michigan, A. B., 1884, A. M., 1888, Ph. D., 1889.
J. T. Denney, Professor of English and Dean of the College of Arts, Philosophy, and Science, Ohio State University.
University of Michigan, A. B., 1885.
J. W. McLane, Principal, Lincoln High School, Cleveland, Ohio.
Adelbert College, A. B., 1883, A. M., 1895.
Mary B. Mumford, Head of the Department of English, Detroit Home and Day School, Detroit, Michigan.
Vassar College, A. B., 1894, Radcliffe College, A, M., 1900.
T. A. Clark, Professor of Rhetoric and Dean of Undergraduates, University of Illinois.
University of Illinois, B. L., 1890.
H. E. Giles, Principal, High School, Kewanee, Illinois.
Oberlin College, A. B.
W. F. Webster, Principal, East High School, Minneapolis, Minnesota.
University of Minnesota, A. B., 1886.

H. M. Belden, Professor of English, University of Missouri.
Trinity (Hartford), A. B., 1888, Johns Hopkins University, Ph. D., 1895.

E. M. Hopkins, Professor of Rhetoric and English Language, University of Kansas.
Princeton University, A. B., 1888, Ph. D., 1894.

W. W. Stoner, Superintendent of City Schools, York, Nebraska.
Otterbein University (Ohio), A. B., 1893.

F. G. Hubbard, Professor of the English Language, University of Wisconsin.
Williams, A. B., 1880; Johns Hopkins, Ph. D., 1887.

Harry E. Coblentz, Head of the Department of English, South Division High School, Milwaukee, Wisconsin.
University of Indiana, A. B., 1894; Lake Forrest University, A. M., 1899.

James Lawrence Lardner, Head of the Department of English and Oratory; Dakota Wesleyan University, Mitchell, South Dakota.
Wabash College, Crawfordsville, Indiana, B. S., 1896; Graduate School of Oratory, Northwestern University, 1900.

W. L. Cochrane, Superintendent of City Schools, Aberdeen, South Dakota.
Kirksville State Normal School (Missouri), B. P., 1900.

C. F. Ansley, Professor of English, State University of Iowa.
University of Nebraska, A. B., 1890.

George P. Koebel, Teacher of English in High School, Clinton, Iowa.
Iowa State University, A. B., 1906.

B. F. Kizer, Director of English, Manual Training High School, Kansas City, Missouri.
Wittenberg College, Springfield, Ohio, A. B., A. M.

V. L. Parrington, Professor of English Literature, University of Oklahoma.
Harvard University, A. B., 1893.

## MATHEMATICS.

C. E. Comstock (Chairman), Professor of Mathematics, Bradley Polytechnic Institute, Peoria, Illinois.
Knox College, A. B., 1888; A. M., 1891.

H. Hancock, Professor of Mathematics, University of Cincinnati.
Berlin University, Ph. D.; Paris, D. Sc.

J. L. Markley, Junior Professor of Mathematics, University of Michigan.
Harvard College, A. B., 1885; Harvard University, A. M., 1887; Ph. D., 1889.

A. Darnell, Head of the Department of Mathematics, Central High School, Detroit, Michigan.
University of Michigan, Ph. B., 1898.

H. E. Slaught, Assistant Professor of Mathematics, University of Chicago.
Colgate University, A. B., 1883, A. M., 1886; University of Chicago, Ph. D., 1898.

J. F. Downey, Professor of Mathematics and Dean of the College of Science, Literature and Arts, University of Minnesota.
Hillsdale College, A. M. 1877; College of Pennsylvania, C. E. 1878.

W. A. Bartlett, Principal, High School, Winona, Minnesota.
Iowa State Normal (Cedar Falls), B. D. 1883; Iowa College, B. S.; 1887, A. M., 1890.

W. D. Wells, Principal, High School, Davenport, Iowa.
Iowa State College, B. Sc., 1883.

E. R. Hedrick, Professor of Mathematics, University of Missouri.
University of Michigan, A. B. 1896; Harvard University, A. M. 1898, Goettigen, Ph. D., 1901.

I. I. Cammack, Principal, Central High School, Kansas City, Missouri.
Earlham College, B. S., 1884.

E. B. Skinner, Assistant Professor of Mathematics, University of Wisconsin.
Ohio University, A. B., 1888; University of Chicago, Ph. D., 1900.

A. L. Candy, Associate Professor of Mathematics, University of Nebraska.
University of Kansas, A. B., 1892, A. M., 1893; University of Nebraska, Ph. D., 1898.

A. R. Congdon, Teacher of Mathematics, Omaha High School.
University of Nebraska, B. Sc., 1899.

H. B. Newson, Professor of Mathematics, University of Kansas.
Ohio Wesleyan University, B. S., 1883, A. M., 1891, Ph. D., 1891.

A. M. Bogle, Teacher of Mathematics, Kansas City (Kansas), High School.
Muskingum College, A. B., 1880, A. M., 1883.

G. W. Nash, President, Northern Normal and Industrial School, Aberdeen, South Dakota.
Yankton College, B. S., M. S.

J. D. Harlor, Head of Department of Mathematics, East High School, Columbus, Ohio.
Ohio State University, B. A., 1895.

S. W. Reaves, Professor of Mathematics, University of Oklahoma.
University of North Carolina, B. S., 1899: Cornell University, A. B., 1900.

## HISTORY

J. A. James (Chairman), Professor of History, Northwestern University.
University of Wisconsin, B. L., 1888; Johns Hopkins University, Ph. D., 1893.

H. E. Bourne, Professor of History, Western Reserve University.
Yale University, B. A., 1883, B. D., 1887.

H. V. Hotchkiss, Superintendent of Public Schools, Akron, Ohio.
Allegheny College, A. B., 1884, A. M., 1887, Ph. D., 1896.

W. Cook, Principal, Saginaw High School, Saginaw, Michigan.
University of Michigan, A. M., 1886, Ph. D., 1887.

H. V. Church, Principal, J. Sterling Morton High School, Clyde, Illinois.
University of Chicago, Ph. B., 1894.

D. C. Munro, Professor of European History, University of Wisconsin.
Brown University, A. M., 1890.

W. C. Howe, Instructor in History, West Division High School, Milwaukee, Wisconsin.

W. M. West, Professor of History, University of Minnesota.
University of Minnesota, B. A., 1879, M. A., 1881.

W. T. Couper, Teacher of History and Civics, East High School Minneapolis, Minnesota.
Hamilton College, B. A., 1892, M. A., 1893; University of Minnesota, LL. B., 1905.

H. H. Freer, Professor of Economics and Sociology, Cornell College, Mt. Vernon, Iowa.
Cornell College, A. B., 1880, A. M., 1883.

W. R. Smith, Instructor in American History, Washington University, St. Louis, Missouri.
Missouri Valley College, Ph. B., 1899; University of Chicago, Ph. M., 1901.

N. W. Lambkin, Teacher of History, High School, Clinton, Missouri.

H. W. Caldwell, Professor of American History and Politics, University of Nebraska.
University of Nebraska, Ph. B., 1880, A. M., 1894.

Manda J. Sundeau, Teacher of History, High School, Lincoln, Nebraska.
Nebraska University, B. A., 1898.

W. C. Abbott, Professor of European History, University of Kansas.
Wabash College, A. B., 1892, A. M., 1893; Oxford University, B. Litt., 1897.

C. H. Rhodes, Principal, High School, Winfield, Kansas.
University of Kansas, A. M., 1905.

W. W. Girton, Teacher of Civics, State Normal School, Madison, South Dakota.

J. S. Ellis, Lake Preston, South Dakota.
A. B., University of Nebraska, 1902.

J. S. Buchanan. Professor of History, University of Oklahoma.
Cumberland University, B. S.

## LATIN AND GREEK

E. W. Coy (Chairman), Principal of Hughes High School, Cincinnati, Ohio.
Brown University, A. M., 1885; Princeton University, Ph. D., 1886.

J. H. Drake, Junior Professor of Latin and Roman Languages, University of Michigan.
University of Michigan, A. B., 1885; Ph. D., 1900; LL. B., 1902.

David Mackenzie, Principal of Central High School, Detroit, Michigan,
University of Michigan, A. M., 1881.

W. R. Bridgman, Professor of Greek, Lake Forest College, Lake Forest, Illinois.
Yale University, B. A., 1881. M. A., 1891; Maine University, M. A., 1891.

J. S. Brown, Superintendent of Township High School, Joliet, Illinois.
Denison University, A. B., 1889; Blandaille College, A. M., 1891.

M. A. Slaughter, Professor of Latin, University of Wisconsin.
De Pauw University, A.B., 1883; Johns Hopkins University, Ph. D., 1891.

Nora Frye, Teacher of Latin, High School, Stillwater, Minnesota
University of Minnesota, B. A., 1901.

J. H. T. Main, President of Iowa College, Grinnell, Iowa.
Johns Hopkins University, Ph. D., 1892.

L. M. McAfee, President of Park College, Parkville, Missouri.
Park College, A.B., 1880, A.M., 1887; Knox College, LL.D., 1903.

W. C. Gunnerson, Teacher of Latin and Greek, Yeatman High School, St. Louis, Missouri.
Indiana University, A.B., 1898, A.M., 1899; University of Chicago, Ph.D., 1904.

G. E. Barber, Professor of Roman History and Literature, University of Nebraska.
Hiram College, A.B., 1871, A.M., 1874.

Grace I. Bridge, Head of the Department of Latin, High School, Lincoln, Nebraska.
University of Nebraska, A.B., 1895.

W. J. Greer, Professor of Latin, Washburn College, Topeka, Kansas.
Miami University, A.B., 1889, A.M., 1893.

R. R. Price, Superintendent of City Schools, Hutchinson, Kansas.
University of Kansas, A.B., 1867; Harvard University, A.B., 1900, A.M., 1901.

A. Strachan, Superintendent of Schools and Principal of High School, Deadwood, South Dakota.
University of Rochester, A.B., 1880, A.M., 1882.

Edward Rissman, Principal of the South Division High School, Milwaukee, Wisconsin.
University of Wisconsin, A.M.

## GERMAN

Laurence Fossler (Chairman), Professor of Germanic Languages and Literatures, University of Nebraska.
University of Nebraska, A.M., 1889.

W. W. Davies, Professor of German, Ohio Wesleyan University.
Ohio Wesleyan University, A.B., 1872; Drew Theological Seminary, B.D., 1874; University of Halle, M.A., Ph.D., 1878.

A. Keifer, Teacher of German, High School, Piqua, Ohio.

M. Winkler, Professor of German Language and Literature, University of Michigan.
Harvard University, A.B., 1889; University of Michigan, Ph.D., 1892.

P. Huber, Superintendent of School, Saginaw, W. S., Michigan.

P. O. Kern, Assistant Professor of Germanic Philology, University of Chicago.
University of Chicago, Ph.D., 1897.

Jessie L. Jones, Assistant Professor of German, Lewis Institute, Chicago.
Doane College, A.B., 1884; University of Chicago, Ph.D., 1897.

A. R. Hohlfeld, Professor of German, University of Wisconsin.
Leipzig, Ph.D., 1888.

Elizabeth A. Waters, Principal, High School, Fond du Lac, Wisconsin, University of Wisconsin, B.S.

Elida C. Kirchner, Teacher of German, Central High School, St. Louis, Missouri.
Washington University, A.B., 1899; University of Missouri, M.A., 1902.

Emilie S. Hamm, Teacher of German, High School, Beatrice, Nebraska.

W. H. Carruth, Professor of German Language and Literature, University of Kansas.
University of Kansas, A.B., 1880, A.M., 1889; Harvard University, Ph.D., 1893.

Harriet Kemp, Teacher of German, High School, Junction City, Kansas.
Baker University, A.B., 1901.

Elizabeth Reid, Instructor in German, Huron College, Huron, South Dakota.
Wooster University, Ph.B.

Hermine R. König, Instructor in German, North Side High School, Minneapolis, Minnesota.

J. B. Knoepfler, Professor of German, Iowa State Normal, Cedar Falls, Iowa.

## FRENCH AND SPANISH

B. L. Bowen (Chairman), Professor of Romance Languages, Ohio State University.
University of Rochester, A.B., 1881; Johns Hopkins University, Ph.D., 1888.

C. W. Benton, Professor of French Language and Literature, University of Minnesota.
Yale University, B.A., M.A., 1874; Western University of Pennsylvania, Litt.D., 1897.

Marie Dehnst, Professor of German and French, Kingfisher College, Kingfisher, Oklahoma.

J. R. Effinger, Junior Professor of French, University of Michigan.
University of Michigan, Ph.D., 1898.

Eugénie Galloo, Professor of Romance Languages and Literatures, University of Kansas.
University of Michigan, B.L., 1892; University of Kansas, A.M., 1895.

Alfred Nonnez, Teacher of French, Walnut Hills High School, Cincinnati, Ohio.
Lycée of Bordeaux, Bachelier ès lettres.

T. E. Oliver, Professor of Romance Languages, University of Illinois.
Harvard University, A.B., 1893; Heidelberg, A.M., Ph.D., 1899.

F. L. Smart, Assistant Superintendent and Principal of High School, Dubuque, Iowa.
Harvard University, A.B., 1896.

Raymond Weeks, Professor of Romance Languages, University of Missouri.
Harvard University, A.B., 1890; A.M., 1891; Ph.D., 1897.

## PHYSICS

C. R. Mann (Chairman), Assistant Professor of Physics, University of Chicago, Chicago, Illinois.
Columbia University, A.B., 1890, A.M., 1891; University of Berlin, Ph.D., 1895.

A. D. Cole, Professor of Physics, Ohio State University.
Brown University, A.B., 1884, A.M., 1887.

Seth Hayes, Principal of High School, Lancaster, Ohio.
Ohio State University, B.Sc., 1892.

C. W. Greene, Professor of Physics, Albion College, Albion, Michigan.
University of Michigan, A.M., 1905; Michigan State Normal College, B.Pd., 1905.

C. F. Adams, Head of Department of Science, Central High School, Detroit, Michigan.
Amherst College, A.B., 1877, A.M., 1884.

C. H. Smith, Teacher of Physics, Hyde Park High School, Chicago.
Cornell University, M.E., 1885.

C. W. Treat, Professor of Physics, Lawrence University, Appleton, Wisconsin.
De Pauw University, Ph.B., 1890, A.M., 1893.

H. L. Terry, State Inspector of High Schools, Madison, Wisconsin.

F. S. Jones, Professor of Physics and Dean of the College of Engineering, University of Minnesota.
Yale University, A.B., 1884. A.M., 1890.

E. F. Smith, Teacher of Physics, Humboldt High School, St. Paul, Minnesota.
University of Minnesota, B.L., 1894.

K. E. Guthe, Professor of Physics, State University of Iowa.
University of Marburg, Ph.D., 1892.

S. L. Thomas, Principal, High School, Council Bluffs, Iowa.

O. M. Stewart, Professor of Physics, University of Missouri.
De Pauw University, Ph.B., 1892; Cornell University, Ph.D., 1897.

F. H. Ayres, Head of Department of Science in Central High School, Kansas City, Missouri,

J. E. Almy, Assistant Professor of Physics, University of Nebraska.
University of Nebraska, B.Sc., 1896, A.M., 1897; University of Berlin, Ph.D., 1900.

H. M. Garrett, Teacher of Science in High School, Beatrice, Nebraska.
University of Nebraska, A.B., 1902.

H. I. Woods, Professor of Physics and Astronomy, Washburn College, Topeka, Kansas.
Lafayette College, A.B., 1895, A.M., 1898.

A. J. Stout, Teacher of Science in High School, Topeka, Kansas.

L. E. Akeley, Professor of Physics, University of South Dakota.
Rochester University, B. A., 1886, M. A., 1888.

W. A. Thompson, Superintendent of Public Schools, Webster, South Dakota.
Indiana University, A. B., 1904.

John Dewey, Professor of Philosophy, Columbia University, New York, New York.
University of Vermont, A. B., 1879; Johns Hopkins University, Ph. D., 1884; University of Wisconsin, LL.D., 1904.

Paul H. Hanus, Professor of the History and Art of Teaching, Harvard University, Cambridge, Massachusetts.

George H. Mead, Professor of Philosophy, University of Chicago, Chicago, Illinois.

M. Vincent O'Shea, Professor of the Science and Art of Education, University of Wisconsin, Madison, Wisconsin.
Cornell University, B. L., 1902.

## PHYSICAL GEOGRAPHY

C. E. Peet (Chairman), Assistant Professor of Geology and Geography, Lewis Institute, Chicago.
University of Wisconsin, B. S., 1892.

G. D. Hubbard, Assistant Professor of Geology, Ohio State University.
University of Illinois, B. S., 1896, M. S., 1898; Harvard University, A. M., 1901; Cornell University, Ph. D., 1905.

A. F. Foerste, Teacher of Science, Steele High School, Dayton, Ohio.
Denison University A. B., 1887; Harvard University, A. M., Ph. D., 1890.

C. A. Jewell, Jr., Teacher of Science, Central High School, Grand Rapids, Michigan.
Michigan Agricultural College, B. S.

W. W. Atwood, Instructor in Physiography and Geology, University of Chicago.
University of Chicago, B. S., 1897, Ph. D., 1903.

G. L. Collie, Professor of Geology and Dean, Beloit College, Beloit, Wisconsin.
Beloit College, B. S.; Harvard University, Ph. D.

C. E. Long, Principal. High School, Marinette, Wisconsin.
University of Wisconsin, B. S., 1902.

C. W. Hall, Professor of Geology and Mineralogy, University of Minnesota.
University of Minnesota, B. A., 1871, M. A., 1873.

W. F. Kunze, Superintendent of Schools, Red Wing, Minnesota.
University of Minnesota, B. S., 1897.

W. H. Norton, Professor of Geology, Cornell College, Mt. Vernon, Iowa.
Cornell College, A. B., 1875, A. M., 1878.

H. H. Savage, Superintendent of Schools, East Waterloo, Iowa.
University of Iowa, Ph. B.

C. F. Marbut, Professor of Geology, University of Missouri.
University of Missouri, B.S., 1889; Harvard University, A.M., 1904.

P. Graves, Teacher of Physical Geography and Geology, Central High School, Kansas City, Missouri.

G. F. Kay, Assistant Professor of Geology and Mineralogy, University of Kansas.
University of Toronto, A. B., 1900, A. M., 1902.

W. L. Enfield, Teacher of Science, High School, Wichita, Kansas.

E. C. Perisho, Professor of Geology of University of South Dakota, and State Geologist.

G. E. Condra, Associate Professor of Geography and Economic Geology, University of Nebraska.
University of Nebraska, B. S., 1896, A. M., 1898, Ph. D., 1901.
Earlham College, B. S., M. A., 1890; University of Chicago, M.S., 1895.

F. H. Hoff, Superintendent of Schools, Mitchell, South Dakota.
Ohio Northern University, A. B., 1891.

## CHEMISTRY

H. E. Griffith (Chairman), Professor of Chemistry, Knox College, Galesburg, Illinois.
Northwestern University, B. S., 1892.

D. C. Rybolt, Principal of High School, Akron, Ohio.
Ohio Wesleyan University. A. B., 1893.

D. Fall, Professor of Chemistry, Albion College, Albion, Michigan,
University of Michigan, B. S., 1875, M. S., 1882; Albion College, Sc. D., 1890,

W. L. Whitney, Teacher of Chemistry in High School, Saginaw, E. S., Michigan.
University of Michigan, Ph. B., 1894.

W. A. Redenbaugh, Instructor in Chemistry, University of Illinois.
Dartmouth College, B. S., 1893, Ph. D., 1897.

G. F. Weida, Instructor in Chemistry, Central High School, St. Louis, Missouri.
University of Kansas, B.S., 1890; Johns Hopkins University, Ph.D., 1894.

G. B. Frankforter, Dean of the School of Chemistry, University of Minnesota.
University of Nebraska, B. S., 1886, M. A., 1888; University of Berlin, Ph. D., 1893.

W. S. Hendrixson, Professor of Chemistry, Iowa College, Grinnell, Iowa.
Harvard University, A. M., 1889, Ph. D., 1893.

F. N. Peters, Teacher in Chemistry, Central High School, Kansas City. Missouri.
University of Missouri, A. B., 1887, A. M., 1890; Illinois Wesleyan University, Ph. D., 1903.

B. Dales, Associate Professor of Chemistry, University of Nebraska.
University of Nebraska, B. S., 1897, M. A., 1899; Cornell University, Ph. D. 1901.

H. A. Senter, Head of Department of Chemistry, High School, Omaha, Nebraska.
University of Nebraska, B. Sc., 1893; Heidelberg, Ph. D., 1896.

E. A. White, Teacher of Chemistry, High School, Kansas City, Kansas.
University of Kansas, A. B., 1904.

Margaret V. Maguire, Teacher of Science, High School, Mitchell, South Dakota.
University of Nebraska, B. Sc., 1904.

Hans W. Schmidt, Teacher of Chemistry and Electrical Engineering, Central High School, St Paul, Minnesota.

G. L. Holter, Professor of Chemistry, Agricultural and Mechanical College, Stillwater, Oklahoma.
Pennsylvania State College, B. S., 1886.

## BOTANY

C. MacMillan (Chairman), Professor of Botany, University of Minnesota.
University of Nebraska, A. B., 1885, A. M., 1886.

F. C. Newcombe, Professor of Botany, University of Michigan.
Leipzig, Ph. D., 1893.

L. Murbach, Head of the Department of Biology, Central High School, Detroit, Michigan.
University of Michigan, Ph. B., 1889, B. S., 1890; Leipsig, Ph. D., 1894.

C. R. Barnes, Professor of Plant Physiology, University of Chicago.
Hanover College, A. M., Ph. D., 1886.

O. W. Caldwell, Professor of Botany, Eastern Illinois State Normal School, Charleston, Illinois.
Franklin College, B. S., 1894; University of Chicago, Ph. D., 1898.

R. A. Harper, Professor of Botany, University of Wisconsin.
Bonn, Ph. D., 1896.

A. H. Christman, Teacher of Science, Stout School of Domestic Economy, Menominee, Wisconsin.
University of Wisconsin, B. S., 1903.

M. F. Arey, Head of Department of Natural Science, Iowa State Normal School, Cedar Falls, Iowa.
Bowdoin, A. B., 1867, A. M., 1870.

Mary I. Steele, Teacher of Biology, Central High School, Kansas City, Missouri.
University of Missouri, B. S., 1900, M. A., 1901.

C. E. Bessey, Professor of Botany and Dean, University of Nebraska.
Michigan Agricultural College, B. Sc., M. Sc.; Iowa State University, Ph. D.; Grinnell College, LL. D.

E. A. Bostrom, Teacher of Botany, High School, Lincoln, Nebraska.
University of Nebraska, A. B., 1902.

Alberta Cory, Teacher of Botany, High School, Kansas City, Kansas.

C. S. Parmenter, Vice President of Baker University, Baldwin, Kansas.
Allegheny College, Ph. D.

Eloise Butler, Teacher of Botany, South Side High School, Minneapolis, Minnesota.

Margaret A. Thompson, Teacher of Botany, State Normal School, Spearfish, South Dakota.
State Normal School, Winona, Minnesota, 1886.

M. F. Guyer, Professor of Biology, University of Cincinnati.
University of Chicago, B.S., 1894: University of Nebraska, A.M., 1897; University of Chicago, Ph.D., 1900.

## ZOOLOGY

J. Reighard (Chairman), Professor of Zoology, University of Michigan.
University of Michigan, Ph.B., 1882.

C. J. Herrick, Professor of Zoology, Denison University, Granville, Ohio.
University of Cincinnati, B.S., 1891; Denison University, M.S., 1895; Columbia University, Ph.D., 1900.

E. L. Moseley, Teacher of Science, High School, Sandusky, Ohio.
University of Michigan, A. M., 1885.

W. A. Locy, Professor of Zoology, Northwestern University.
University of Michigan, B.S., 1881, M.S., 1884; University of Chicago, Ph. D., 1895.

F. L. Charles, Instructor in Biology, Northern State Normal School, DeKalb, Illinois.
Northwestern University, B.S., 1904, M.S., 1905.

H. D. Densmore, Professor of Botany, Beloit College.
Beloit College, A.B., 1886. A.M.

L. Atherton, Head of Department of Biology, High School, Oshkosh, Wisconsin.
Albion College, B.S., 1895; University of Michigan, M.S., 1899.

H. F. Nachtrieb, Professor of Animal Biology, University of Minnesota.
University of Minnesota, B.S., 1882.

W. W. Norris, Professor of Zoology, Iowa College, Grinnell, Iowa.
Iowa College, B.A., 1886.

J. A. Anderson, Head of Department of Biology, High School, Dubuque, Iowa. Lake Forest College, A.B., 1897, A.M., 1898.

L. E. Griffin, Professor of Biology, Missouri Valley College, Marshall, Missouri. Hamline College, B.A., 1895; Johns Hopkins University, Ph.D., 1900.

J. W. Scott, Teacher of Biology, Westport High School, Kansas City, Missouri. University of Missouri, A.B., 1896, A.M., 1897; University of Chicago, Ph.D., 1904.

Caroline E. Stringer, Head of Department of Biology, High School, Omaha, Nebraska. University of Nebraska, B.Sc., 1902, A.M., 1904.

J. M. Matheny, Superintendent of Schools, Flandreau, South Dakota.
University of Indiana, B.S., 1897, A.B., 1902.

A. Pihlblad, Professor of Biology Bethany College, Lindsborg, Kansas. Bethany College, A.B., 1894, A.M., 1896; University of Chicago, M.D., 1899.

C. E. Johnson, Teacher of Science, Sumner County High School, Wellington, Kansas. Kansas State Normal, B.P., 1895; Kansas State University, A.M., 1898.

C. P. Lommen, Professor of Biology, University of South Dakota, Vermillion. University of Minnesota, B.S., 1891.

## COMMERCIAL SUBJECTS

E. V. Robinson (Chairman), Principal, Central High School, St. Paul, Minnesota.
University of Michigan, A.B., A.M.; Leipzig, Ph.D.

F. C. Hicks, Professor of Economics and Civics, University of Cincinnati.
University of Michigan, A.B., 1886, Ph.D., 1890.

D. Kinley, Dean of Graduate School, Director of Courses in Commerce, Professor of Economics, University of Illinois.
Yale University, A.B., 1884; University of Wisconsin, Ph.D., 1893.

H. E. Brown, Principal, High School, Rock Island, Illinois.
Iowa College, Ph.B., 1899.

F. L. McVey, Professor of Political Economy, University of Minnesota.
Ohio Wesleyan University, A.B., 1893; York University, Ph.D., 1895.

M. M. Beddall, Principal, High School, Boone, Iowa.
University of Wisconsin, B.L., 1897.

I. A. Loos, Professor of Political Economy, State University of Iowa.
Otterbein University, A.B., 1876, A.M., 1879; Penn College, D. C.L., 1898.

M. S. Wildman, Assistant Professor of Economics, University of Missouri.
University of Chicago, Ph.D., 1904.

P. B. S. Peters, Director of Business Course, Manual Training High School, Kansas City, Missouri.
Kansas City Law School, LL.B., 1900.

G. A. Gregory, Superintendent of Schools, Crete, Nebraska.
Doane College, B.S., 1881.

N. M. Graham, Principal, High School, South Omaha, Nebraska.
University of Nebraska, A.B.

D. T. Walker, President, Watertown Commercial College, Watertown, South Dakota.

## MANUAL TRAINING

C. M. Woodward (Chairman), Dean of School of Engineering and Architecture, Washington University, St. Louis.
Harvard University, A.B., 1860; Washington University, Ph.D., 1874, LL.D., 1905.

T. K. Lewis, Assistant Professor of Architectural Drawing, Ohio State University.
Ohio State University, B.S., 1894.

J. W. Carr, Superintendent of Instruction, Dayton, Ohio.
Indiana University, A.B., 1885, A.M., 1890.

G. N. Carman, Director, Lewis Institute, Chicago, Illinois.
University of Michigan. A.B., 1881.

C. A. Bennett, Professor of Manual Arts, Bradley Polytechnic Institute, Peoria, Illinois. Worcester Polytechnic Institute, B.S.

J. D. Phillips, Professor of Drawing University of Wisconsin. University of Illinois, B.S., 1893.

J. J. Flather, Professor of Mechanical Engineering, University of Minnesota. Yale University, Ph.B., 1885; Cornell University, M.E.E.

G. F. Weitbrecht, Principal Mechanic Arts High School, St. Paul, Minnesota. Amherst College, A.B., 1874.

A. C. Newell, Supervisor of Manual Training, West Des Moines, Iowa. University of Michigan, B.S., in E. E., 1892.

C. H. Bailey, Director of Manual Training, Iowa State Normal School, Cedar Falls, Iowa. Iowa State University, B.S., in C.E., 1895; Columbia University, B.S., 1903.

C. R. Richards, Professor of Mechanical Engineering, University of Nebraska. Purdue Universisy B.M.E., M.E., 1891; Cornell University, M.M.E., 1895.

W. M. Davidson, Superintent of Instruction, Omaha, Nebraska. University of Kansas, A.B.

A. F. McDonald, High School, Sioux Falls, South Dakota. Oberlin College, A.B., 1900.

## THIRD SESSION, SATURDAY MORNING.

The Association was called to order by the President at ten o'clock a. m. The question set for discussion was the general topic of "Coeducation." Professor M. V. O'Shea of the University of Wisconsin opened this discussion with the following paper:

# TENDENCIES IN COEDUCATION.

BY PROFESSOR M. V. O'SHEA, UNIVERSITY OF WISCONSIN

### 1. *Popular Views of Coeducation.*

If the question of coeducation as opposed to separate education of the sexes could be submitted to popular vote, it is probable that at least ninety-five out of every one hundred parents in our country would declare in favor of it from the kindergarten to the university.[1] If the same question

[1]The development of coeducation in our country during the last quarter of a century indicates that our people have faith in it. Of elementary pupils at least 96 per cent are enrolled in coeducational schools, according to the U. S. Commissioner of Education; and of secondary pupils at least 95 per cent.

"In 1880 more than half the colleges of the country, 51.3 per cent (omitting in this consideration colleges exclusively for women and land-grant colleges, not departments of universities), reported coeducation either in the preparatory departments or in both preparatory and collegiate departments. Considering the latter only, there were 128 universities and colleges, or 35.7 per cent of the total number reported, which admitted women to the college classes. The 2,323 women regularly matriculated in these institutions formed 7.2 per cent of the total number of their undergraduates. In the decade 1880 to 1890 the number of coeducational colleges had increased to 65.6 per cent of the total number, and the proportion of women matriculated to 19.5 per cent of the total number of college students. In 1900 the proportion of coeducational colleges was 71.6 per cent, and the proportion of women in their collegiate departments 24.7 per cent of their total registration. In 1904 the proportion of coeducational colleges had reached 76 per cent and the proportion of women in their collegiate departments 35.5 per cent." Report Com. of Ed., for 1904, Chap. XXXVII, p. 2287.

could be proposed in Italy, France, Germany, and England, doubtless ninety-five per cent of the people would express themselves against it in all but the primary grades. Scotland alone among European nations would take a position similar to our own. In Scottish schools, elementary, secondary, and higher—one may see boys and girls working together in all classes; and so far as an observer can tell, no sex distinctions are made either in methods of teaching or in discipline, except that the universities seem not yet quite adjusted to the new régime. But elsewhere in Europe, the sexes are early differentiated in their work. Ask any English, German, French, or Italian school-master why boys and girls should not be trained together, and substantially the same reply will be made in every instance. The chief reason they give for separation is usually a moral one; they believe it is required by the very nature of things that at the dawn of adolescence at the latest boys and girls should be kept apart. Then masculine and feminine minds are differently constituted, and they need to be differently trained. Also, the boy is stronger than the girl, intellectually and otherwise, and he ought to be subjected to a more rigorous education al regimen. Moreover, men and women must fill quite different spheres in life, and each should have a suitable preparation therefor. Now, most teachers in America would deny each and all of these propositions. Among us the popular argument runs that there is no fundamental difference between the feminine and the masculine mind. In knowledge there are no sex distinctions, and there should be none artifically made in teaching. Besides, men and women must live together

in real life, and they should acquire an understanding of one another and a community of interests during the educational period. It is urged by the defendants of coeducation that, in the large and in all details, the moral relations of the sexes are improved by their being trained together.

### 2. *The Views of School Men*

At the outset we may glance at the views of some of those who are in actual control of educational forces, and whose opinions of coeducation are based upon first-hand knowledge. As a general principle, we would expect men in charge of segregated colleges to favor segregation; and we find this to be true with scarcely an exception in the southern states where separation of the sexes prevails. On the other hand, those in charge of coeducational institutions would naturally be in favor of this régime, so that we ought not to attach final value to testimonies derived from these sources. President Hall[1], for instance, sees many reasons why women should be educated apart from men; but President Jordan[2], President Thwing[3], President Angell[4], President Draper[5], President White[6], and many others[7] see as many reasons why they should be educated together. President Jordan thinks the

[1] Adolescence, Vol. II, Chapter XVII.

[2] The Higher Education of Women; Pop. Sci. Mo. Dec. 1902; also

[3] Forum, Vol. 30.

[4] Pop. Sci. Mo., Vol. 62, p. 5.

[5] Educational Review, Vol. 25, p. 109.

[6] Penn. Sch. Journ. Vol. XX, p. 313.

[7] See the following: Brackett (Editor), Education of American Girls, New York, 1874. Harris, W.T. Report Nat. Bureau of Ed., 1891-92, pp. 806-812; Howe (Editor), Sex in education, Boston, 1874.

girl tends to acquire form rather than substance, technic rather than art in her education, and this is aggravated under segregation. He denies that the rush of women into state institutions has lowered scholarship; instead it has really improved academic conditions, for "young men are more in earnest, better in manners and morals, and in all ways more civilized than under monastic conditions. The women do more work in a more natural way, with better perspective and with saner incentives than when isolated from the influence of the society of men. There is less silliness and folly where a man is not a novelty. In coeducational institutions of high standards, frivolous conduct or scandals of any form are rarely known. The responsibility for decorum is thrown from the school to the woman, and the woman rises to the responsibility."

The question of coeducation is, perhaps, of special importance today in the secondary school; and it may be of interest to glance at the views of a number of principals in charge of high schools[1] in different sections of the country. These opinions were expressed in response to a series of questions

[1] The following high schools sent replies to questions: Burlington, Vt.; Brunswick, Me.; Providence, R. I.; Stanford, Conn.; St. Louis, Mo.; Wilmingham, Del.; Washington, D. C.; Rochester, N.Y.; Friendship, N. Y.; Medina, N. Y.; Buffalo, N. Y.; Columbus, Ohio; Detroit; Chicago; East Div., Milwaukee; Lincoln, Neb.; East Side, Denver; Yankton, S. D.; Livingston, Mont.; Eugene, Ore.; Rawlins, Wyo.; Oklahoma, Okla.; Birmingham, Ala.; Vicksburg, Miss.; Columbia, S. C.; Augusta, Ga.; Richmond, Va.; Hammond, La.; Houston, Tex.; Knoxville, Tenn.; Boise, Idaho; Topeka, Kan.; Manchester, Mass.; Stuyvesant (for boys) New York; Northweet, Philadelphia, Pa.; Little Rock, Ark.; Indianapolis; Salt Lake City; Lidgewood, N. D.; Asheville, N. C.; Colorado Springs; North Branch, Minn.; Milton, Wis.; New Orleans, La.; Stamford, Conn.; Tampa, Fla.

sent out by the writer, and touching the points at issue in the current discussions of the subject. The questions, with the answers from typical high schools, are indicated in the following summary.

Question 1. Is the plan of coeducation carried out in detail in your school?

Yes, 42; no, 3.

Question 2. Has the plan of segregation ever been tried? If so, with what results?

No, 36; yes, 4,—but unsatisfactory; yes, and satisfactory, 3. Segretion in first year of high school, 1; separate study halls, but recite together, 2.

Question 3. If you were free to work out your own ideals would you segregate the sexes?

No, 38; yes, 3. Yes, in some studies, as domestic science, manual training, physics, 3. Yes, above the twelfth year, 3.

Question 4. Are the boys benefitted by co-education? If so, how?

Yes, 39; failed to answer the question, 3; "No difference either way", 1; "Yes, after first year in the high school", 1; "Little benefit above twelfth year," 3.

Among the benefits to boys are named the following:

| | |
|---|---|
| Intellectual | Stimulation to do better work.<br>They are made "higher minded."<br>Higher standard of scholarship maintained. |
| Moral | Stimulation to good conduct.<br>Standard of honor elevated.<br>"Tones them down" and raises their standard of morals.<br>It is the natural way; there is no segregation in the home, in the church, or on the street.<br>Less sex emphasis than in separate schools and hence less false modesty results. |
| Social | Boys are made more gentlemanly, refined more thoughtful, and considerate.<br>Makes them chivalrous, courteous, and dignified.<br>Promotes the real social organization of the school as a true part of life. |
| General | Gives more respect *for* and better appreciation *of* the opposite sex.<br>Presence of girls is a restraining and elevating influence.<br>Gives other ideals besides primitive one of beauty.<br>Better personal appearance results.<br>Leads to wiser and better choice of life helper. |

Question 5. Among the benefits to the girls are named the following:

| | |
|---|---|
| Intellectual | Gives them confidence in their own ability, their standard of scholarship in many subjects proving to be better than the boys.<br>Makes girls more robust mentally. |
| Moral ..... | Makes wiser and later marriages,<br>Makes for a balanced social organization. |
| Emotional.. | Girls less likely to be silly, simpering, affected and self-conscious.<br>Less embarrassment in presence of opposite sex.<br>Prevents the extreme sentimentality almost invariably found in Girls' Schools.<br>They pay less attention to boys per se, than the pupils in Girls' Schools. |
| Social . .... | Social ideals higher,<br>Pay less attention to boys outside of school hours than girls where segregation is practiced. |

A considerable number of replies were in substance:—Both boys and girls in coeducational schools show much less of that magnified interest in the opposite sex which is so marked in the segregated schools.

Question 6. What evils resulting from coeducation have you observed?

a. Too few men teachers.
b. Work too exacting for girls at certain periods.
c. Each sex tends to be a sort of distraction to the other, if thrown together after the 12th or 14th year.
d. Boys sometimes hindered from proper self-assertiveness.
e. Social life carried too far.
f. Different interests of boys and girls require difference in courses.
g. Undue self-consciousness and familiarty in some cases.

Twenty-eight said "no evils" resulted directly from coeducation. Three failed to answer this question. Sixteen qualified their answers.

Characteristic replies:—

"No evils not common to separate schools."

"Many evils from lack of proper system and supervision, not from coeducation."

"Evils result from the improper use of all human or divine institutions."

"Exception rather than the rule," etc.

Question 7. Do you favor different studies for boys and girls?

Nine answered "no"; three failed to answer the question; thirty-five favored either election of studies under proper system, or separate classes in manual training, domestic science, etc.; and several voted for separate classes in higher elementary mathematics and physics, but not in the general course of studies.

From a survey of the returns to our questions no one could conclude that in our country there is

dissatisfaction among school men with the general system of coeducation, although there are a few suggestions looking toward a modification of the plan as it is carried out in some places. But if the opinions of men in actual charge of education are to be depended upon, coeducation will stand the test on every vital point. It should be recognized, however, that most of those at the head of coeducational high schools have had no experience whatever with segregation; and as they have no intention of attempting separation of the sexes, they naturally would not be ready in detecting the shortcomings of coeducation; though it is reasonable to say that if there were any gravely serious defects in the system they would doubtless be reported.

In this connection it may be of service to quote the opinions of a few school superintendents, responding to a query addressed to them by the U. S. Commissioner of Education[1].

Superintendent Tarbell, of Providence, R. I., says:

"The high schools of Providence were changed about ten years ago from separate to coeducational schools. The elementary schools of this city have been coeducational for the last sixty-five years. There has been no change from coeducation to separate schools. We have established during the last ten years three new high schools, which are all coeducational. The subject of coeducation in high schools is not a matter which excites much discussion in this city. Personally, I favor coedutional institutions."

Superintendent Maxwell, of New York, says:

"The subject of co-education, especially in high or

[1] See Report of Com. of Ed. for 1900-1901, Chap. XXVII.

secondary schools, does not excite much discussion in this community. The present trend of opinion appears to be toward coeducation.

"In reply to your invitation for a statement of my personal observation relative to co-education, I would say that in more densely inhabitated parts of New York City there is a good deal of opposition to coeducation, particularly where there is a large foreign element present in the schools. In the outlying and more thinly populated parts of the city there is a very strong feeling in favor of coeducation."

Superintendent Poland, Newark, N. J., writes:

"I am of the opinion that boys and girls are best educated together during the whole period of the elementary and secondary course."

Superintendent W. F. Slaton, Atlanta, Ga., says:

"It is my decided opinion that it is better that the sexes should be separate and taught entirely apart after they have reached the high school age. I am very sure, from both experience and observation, which extend over a period of fifty years, that we pursue the better plan."

From Superintendent Gove, Denver:

"In the light of my life's work I am compelled to express an opinion contrary to that held in my earlier life. I think coeducation of youth in their teens is not productive of the desired results. I should not object to the assembling of both sexes under the same roof and in the same classes, under proper restrictions. I think the training and culture of that sort of education, properly governed, is good training for adult life. I do object, however, to identical courses of instruction for the sexes. I also object to an identical amount of time for both sexes. The girls should do their school work in less time per day than the boys. This will re-

quire a longer term of years for accomplishing the average high-school course. The requirements and duties of the girl demand a training over and beyond that demanded for the boy. The boy fifteen years old can well afford to put in six hours a day in study and class work. His sister, fifteen years old, has duties of which he knows nothing, but which are important and which demand time for execution.

"Throwing aside altogether the consideration of modified physical functions, the other duties of our young people are widely separated by sex. Practically the typical high school can have its courses so adjusted that every girl in the house can be excused at noon, the boys doing the regular afternoon's work; the girl taking six years to complete the course which the boy accomplishes in four".

From Superintendent Van Sickle, Baltimore:

"My experience until last year was with coeducational high schools, both elementary and secondary. I am not able yet to see any advantage in separating the sexes".

Superintent Balliet, Springfield, Mass., says:

"I have always been in favor of such coeducation; and whilst I have had supervision of schools in which the sexes were kept separate, from the primary schools up through the high schools, I have not seen any good reason for changing my views on the subject.

I have observed in schools where the sexes are educated together, as is the case in this city, that they have a mutually beneficial influence upon each other. I have not found any evils of a serious character at all to result from such association in school.

I have further observed in places in which the sexes were separated that such separation in school had the effect of leading to evils in other unavoidable associations on the street and on social occasions; evils which,

but for this artificial separation in school, I believe would not have existed. I believe that what objections there have arisen in certain localities to coeducation, are due to evils which are not due so much to the effect of coeducation, as they are due to the fact that there are weak teachers in the schools who have not the power to create either a stimulating, intellectual, or a wholesome moral atmosphere in the school. Wherever the separation of sexes appeared to be a necessity I have found weak teachers and poor schools in general. I believe that they are related as cause and effect."

3. *Lessons from the Old World.*

The plan of separating the sexes in education has been thoroughly tested in the Old World, and and we may see if we can gain anything of service from their experience, which may enlighten us on the general question of coeducation *vs.* separation. Needless to say, it is extremely difficult to determine to what extent any educational policy is responsible for the peculiar traits of a nation or community, and the most we can do is to state certain reasonable inferences. It is worthy of note that Europeans, with here and there an exception as an American meets them, are firmly convinced that we are in grave peril in teaching boys and girls in the same school, and in the same way in respect to studies, methods, and discipline. They declare that our practice is both physically and morally dangerous. Now, one can not observe the results of the general European custom of separation beyond the primary grades without having certain convictions deeply impressed upon him. The writer recently asked eight American educators[1], who had made a study

[1]President Thwing, President Jesse, Professors Whitney, Bolton, Ellis, Cubberley, Hanus, and Superintendent Marsh.

of European education, to express their opinions upon the results of separation of the sexes in all higher schools, and there is substantial agreement upon the following points. For one thing, the American student finds that women do not occupy as prominent a position anywhere in Europe as they do in America. They are not expected to play an important rôle in political, educational, or even social activities. They come second in the count always. Their freedom of action in every direction, except the purely domestic, seems narrowly circumscribed, compared with American women. Europeans cannot understand how it is possible for American girls to go about unprotected by fathers, brothers, or chaperons, as they do so freely in England, France, Germany, and Italy. European women are not encouraged to go abroad as American women are; it is thought their proper place is at home. There are many American girls studying in Rome, Paris, Berlin, and London, and they appear to take advantage of the opportunities offered in these cities more effectively than the natives themselves do. The American girl seems to be distinctly more independent and original in thought and action than her European sister; all observers recognize this. A number of European educators who have visited America have remarked to the writer upon the vivacity and intelligence of the women here. They are surprised to find that they can converse readily and pointedly upon matters of common interest. With us, there is no great gap between men and women in the most of their interests and activities; but just the reverse is true in the Old World.

This situation does not seem to be best for

either the men or the women; and it appears to be detrimental to social health and progress. The moral status of European life, speaking generally, is below what it is in America. Men and women in Italy, France, and Germany especially, have few intellectual or social interests in common. Europeans often ask of Americans, "What do your young men and women talk about anyway when they are together?" Companionship between the sexes is thought to be impossible, and practice is determined accordingly. The training of boys and girls there impresses upon their minds continually the idea that they can not be comrades, for only one sort of interest can exist between them. Here, I think, is the chief count against separation of the sexes in education. Isolation, while aiming to minimize the sex problem, seems to aggravate it in the end. Where boys and girls are trained together and in much the same way, having constantly intellectual and social ends to strive after in a cooperative manner, they get so they can be together without the sex relation dominating everything else in their thoughts.

Speaking generally, the European system of educating women leaves them ill-prepared to take care of themselves, or to play any independent rôle in society. They do not elevate the moral tone of the community perceptibly, because they can do little to turn the thoughts and energies of people into channels of productivity along educational, philanthropic, or intellectual lines. It could probably be shown, if space permitted, that the moral status and general integrity and inefficiency of any civilization depends upon the extent to which its

women stimulate the men to high endeavor in literary, artistic, educational, and other pusuits. In a very subtle but very real way woman determines largely the directions in which man will expend his energies, when they are not fully dissipated in the struggle for existence. In Europe today one may see civilizations beginning to decline, for one thing because masculine energy is being spent along lines of primitive, physical impulses. The status of woman encourages this, and her education leaves her helpless, and even indisposed, to do little else of a positive sort.

Now, the prominence of woman in American life is probably due in no small measure to her receiving an education much like that which the man receives. Coeducation as found in most of our schools makes the girl acquainted with things as they are, and on the whole develops her so that she can win the respect and admiration of men. As a result, feminine influence is felt in all the concerns of society in our country, and this is surely of advantage from whatever standpoint it is viewed.

But as the Europeans point out, there are in coeducation disadvantages which we may not have escaped. In some of the boys' schools in Europe, particularly in Germany, more vigorous work is done than in the mixed schools in America, and probably because boys when alone can sometimes push on more rapidly than when the girls are with them; though this is denied by many school men in our country. And then there are boys who are doubtless too much concerned with the girls when the latter are too prominent in the environment; and the same principle may apply to the girls. However, under

the control of a thoroughly strong teacher, alike in personal and in teaching qualities, this evil can be managed successfully; but it becomes serious under a weak teacher.

There is another danger which Europeans think we have not sufficiently appreciated. The Moseley Commission declared that our boys were being made effeminate by our system of coeducation, and the predominance of women as teachers in our schools. Without doubt our boys would be very materially benefitted if they came under the influence of strong men much more generally than they now do, and this would be accomplished if they were segregated. But there is no reason, except a financial one, why men should not be placed in greater numbers in our coeducational schools. The girls as well as the boys need the influence of strong men; and one of the disadvantages of segregation is that they would not have instruction from men. The solution of the problem lies not in segregation so much as in raising the financial status of teaching so that capable men will be attracted to it, and so that they will equal the women in numbers in our schools.

While recognizing the great advantage of strong men in the education of a boy especially, it should at the same time be said that an American, observing the boys in the secondary schools and colleges of Europe, usually comes to the conclusion that our boys do not lack virility, and they may even possess it in greater degree than boys in certain of the countries of the Old World. There are doubtless boys among us who spend their recesses and out-of-school hours with the girls of their school, when they ought to be engaged in vigorous games.

The English boys in the great Public Schools at Eton, Rugby, etc., are probably better off in this respect than some of our boys; but this difficulty can be remedied if we can secure play grounds as they have at these Public Schools, so that all our boys may take part in games specially suited to them. Then we would compel them to participate in manly games, as they do in England. At the same time, we would have appropriate games for the girls, as they do in the better grade of girls' schools in England and Scotland.

There is one school in England where the superiority of coeducation is being demonstrated, as the Headmaster, Dr. Badeley, believes. Badeley's School, the Bedales, is beautifully located in the country about two hours by fast express from London. Here are one hundred and thirty-five boys and girls, working together all day in the classrooms, laboratories, manual arts, shops, and gardens. They are all put through the same course until sixteen, when specialization begins, and the boys devote themselves more particularly to the scientific and mathematical subjects, and the girls to the historical, linguistic, and literary snbjects. The Headmaster claims that, as it actually turns out, the boys after sixteen do more than the girls, and yet they are together in some parts of their work. The girls, and boys as well, look physically stronger than many of our high-school boys and girls; but it is evident that they do less book work than our pupils, and they are out-of-doors much more. Besides they live a regular and hygienic life in every way. It is significant that leading English educators, though violently opposed to

Badeley's scheme when he began a dozen years ago are compelled to acknowledge that the moral and physical disasters which they predicted have not come to pass.

The chief criticism made of the school now by English people is that the girls there lose something of their femininity. They play like the boys, are their equals in conversation and argument, and are not shy and retiring in their presence. They are too much in evidence to suit the average Englishman, who holds that girls should be kept somewhat in the background. The American girl, he thinks, is too mannish; she talks too much, and too loud, and is more or less masculine in all she does. It must be confessed that one sometimes wishes the American girl had rather more restraint, especially in reference to the quantity and character of her speech. Her use of slang counts against her with most English people. It is possible that our coeducational work does often develop too great self display in the girls. They frequently imitate the boys in everything, and to their disadvantage in some things. It seems that we have here a problem which calls for more earnest study than we have given it yet. If we can we should keep the American girl's courage, independence, vivacity, and freedom in expression, while at the same time developing in her something of the refinement in speech and self-restraint of the English girl.

### 4. *The Views of Anthropologists and Physicians.*

A few years ago President Butler, of Columbia, declared it was a waste of time and energy for

American teachers to debate the question of co-education, since it is unalterably fixed in our civilization. But today we see that a considerable number of men, viewing the matter from the standpoint of different sciences, are demanding a modification, at least, in our present régime. Since the appearance of Clarke's Sex in Education, in 1873, many prominent physicians, as Beard[1], Taylor[2], Clouston[3], Allen[4], Mitchell[5], van Rensselaer[6], Crichton Browne[7], and Edson[8], have taken up arms against the sea of troubles brought upon girls by our system of education.

The anthropologists, too, such as Key, Roberts, Porter, Boas, Bowditch and many others[9] have shown that there are marked sex differences in individual evolution. For one thing it has been definitely established, I think, that the boy and the girl develop at unequal rates of speed, and mature at different ages. The adolescent upheaval begins

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[1] American Nervousness: Its Causes and Consequences. New York, 1881.

[2] Puberty in Girls and Certain of its Disturbances. Pediatrics, July 15, 1896.

[3] Female Education from a Medical Point of View. Pop. Sci. Mo., 1884, pp. 214 and 319.

[4] Plain Words about the Woman Question. Pop. Sci. Mo., Dec. 1889.

[5] In his Doctor and Patient. Phila. 1888.

[6] The Waste of Woman's Intellectual Force. Forum, 1892, p. 616.

[7] Sex in Education. Educational Review, 1892, p. 164.

[8] American Life and Physical Deterioration. North Am. Rev., Oct., 1893.

[9] For a summary of investigation in many countries, see Burk: The Growth of Children in Height and Weight; American Journ. of Psych., April 1898, page 253-326.

earlier, is more profound while it lasts, and is completed several years sooner in the case of the girl than the boy. The former attains relative stability and maturity at a period when the latter is still developing rapidly. Again, if one can rely upon the testimony of medical men, who are a unit in regard to the matter, the girl has less energy which may wisely be expended in labor either physical or mental, than the boy. According to these men the health of a considerable proportion of our girls is injured in the coeducational school as it exists among us. However, the testimony of the girls themselves will not bear out this statement. Professor Dewey[1], in his study of the health of two hundred and ninety women in higher education concluded that coeducational institutions are not so hard on girls as female colleges; one-third more students have nervous disorders in the latter than in the former type of school. Miss Preston[2] reporting on the health of two hundred college girls says that only 2.75 per cent were unable to continue their work from ill-health, while 2.85 per cent of men in Amherst College dropped out for the same cause. MissHayes[3] has also shown that, judging from the testimony of girl students, they are about as well off, so far as health is concerned, in a coeducational college as before entrance thereto, or after graduation therefrom. In a number of personal interviews, extending over a period of eight years, with

[1] See his article on Health and Sex in Higher Education; Pop. Sci. Mo. 1886.

[2] The Influence of College Life on Health; Com. of Mass. Med. Soc. Boston, 1895.

[3] Health of Women Students in England; Education, Jan. 1891.

men and women students in the University of Wisconsin, the writer has found that the women, by their own statements, have not suffered more than the men; and a large proportion of them have declared that they are in better health on the whole in the university than they are when they have no regular occupation. At the same time, they say they feel they would gain still more if the program of work were not quite so rigorous and inelastic. With very few exceptions they say emphatically that study and a regular life are favorable to health. In the higher classes of the University of Wisconsin the present year there are a number of women who have spent their earlier years in schools for women; and in interviews with the writer they have, with two exceptions, stated that they think the women here are stronger physically than they were in their former colleges. Where women are segregated, they say, some of them are likely to become hysterical, which is comparatively rare in coeducational schools. My informants state that the presence of the men conduces to nervous poise and health, and does not lead to overstrain, as some opponents of coeducation maintain. They go so far as to protest against housing of women in large dormitories; they think the women would be better in every way if they lived in small groups, into which men and other things of the world would be freely admitted.

One suspects that the testimony of women in coeducational institutions is not entirely reliable, though it is given in all honesty and sincerity. But any careful observer knows that women are eager to be admitted to all the advantages of coeduca-

tional institutions,[1] and they unconsciously lay undue emphasis upon any evidence tending to show that they are competent in every way to endure without injury all strains and tests to which they may be put. It is unquestionably true that girls are not infrequently found who say they are in good health when, if they did not have some great stimulus to keep them going, they would collapse; but so far as the writer's experience goes these do not constitute a large proportion of the girls in coeducational high schools or colleges. In this connection it may be pointed out that probably some of the physicians who have been declaiming against the present system of educating women have been writing from the standpoint of theory rather than that of

[1] The following table shows that women are choosing coeducational in preference to segregated colleges:

*Number of undergraduate and resident graduate students in universities and colleges from 1889-90 to 1905-6.*

| Year. | Universities and colleges for men and for both sexes. | | Colleges for women. Division A. | Schools of technology. | | Total Number. | |
|---|---|---|---|---|---|---|---|
| | Men. | Women. | Women. | Men. | Women. | Men. | Women. |
| 1889-90 | 38,056 | 8,075 | 1,979 | 6,870 | 707 | 44,926 | 10,761 |
| 1890-91 | 40,089 | 9,439 | 2,265 | 6,131 | 481 | 46,220 | 12,185 |
| 1891-92 | 45,082 | 10,390 | 2,686 | 6,131 | 481 | 51,163 | 13,507 |
| 1892-93 | 46,689 | 11,489 | 3,198 | 8,616 | 843 | 55,305 | 15,530 |
| 1893-94 | 50,297 | 13,144 | 3,578 | 9,517 | 1,376 | 59,814 | 18,098 |
| 1894-95 | 52,586 | 14,298 | 3,667 | 9,467 | 1,106 | 62,053 | 19,071 |
| 1895-96 | 56,556 | 16,746 | 3,910 | 8,587 | 1,065 | 65,143 | 21,721 |
| 1896-97 | 55,755 | 16,586 | 3,913 | 8,907 | 1,094 | 64,662 | 21,548 |
| 1897-98 | 58,407 | 17,765 | 4,416 | 8,611 | 1,289 | 67,018 | 23,470 |
| 1898-99 | 58,467 | 18,948 | 4,593 | 9,038 | 1,339 | 67,505 | 24,880 |
| 1899-00 | 61,812 | 20,452 | 4,872 | 10,347 | 1,440 | 72,159 | 26,764 |
| 1900-01 | 65,069 | 21,468 | 5,260 | 10,403 | 1,151 | 75,472 | 27,879 |
| 1901-02 | 66,325 | 22,507 | 5,549 | 11,808 | 1,202 | 78,133 | 29,258 |
| 1902-03 | 69,178 | 24,863 | 5,749 | 13,216 | 1,124 | 82,394 | 31,736 |
| 1903-04 | 71,817 | 24,413 | 6,341 | 14,189 | 1,269 | 86,006 | 32,023 |
| 1904-05 | 77,250 | 26,739 | 6,305 | 14,911 | 1,199 | 92,161 | 34,243 |
| 1905-06 | 97,738 | 31,443 | 6,653 | [a] | [a] | 97,738 | 38,096 |

observed fact. Their views may need to be discounted as much as those of the girls themselves. Striking a balance between the two we find that, looked at in the best light, the pace set in our coeducational colleges is somewhat too rapid and unvarying for the average girl.

It is without doubt true also that the girls are not infrequently overtaxed in the high school. The writer has investigated this matter in a western city, and at least twenty-five per cent of the parents of high school girls have complained of undue pressure from the school, though few of them could name specific evils resulting therefrom[1]. But the feeling was quite common that girls did not have enough leisure; they would be stronger and happier if they lived less strenuous lives. The evidence seems sufficiently clear and abundant to warrant the statement that it would be of distinct advantage to many, if not to most girls, if they could spend more time in completing a secondary and college course than they now do. It seems a mistake for boys and girls to be kept together, year for year, from start to finish. The differing rate of development in the two cases would advise breaking the lockstep if they are to be educated in the same school; and the need of the girl in the matter of energy seems imperative. If we could promote by subject instead of by grades or years, so that the girl could without loss of class or standing take more time for her work it would be a distinct gain. Here is a reform which would minimize one serious danger in coeducation.

[1] cf. Kennedy, Ped. Sem. Vol. III, June 1896, p. 469.

### 5. *The Views of Biologists and Psychologists*

In recent years biologists and psychologists such as Ellis[1], Hall[2], Patrick[3], Brooks[4], Thompson[5], and others have been pointing out certain differences in the physical and mental organization of boys and girls; and the inference is drawn that if they are trained together one or the other, or both, will be injured in consequence.

Current theory respecting the more obvious differences between man and woman may be stated in the words of Hall.[6] After indicating differences in the cerebral organization and development of man and woman he says,—

"Woman has rapid tact in extricating herself from difficulties; girls speak quicker than boys; old women are likely to be talkative, old men glum; men progress most after graduation; women are very prone to lose accomplishments and special culture and training, are more punctual in school and college, more regular in attendance, and in higher grades have the best marks, but vary less from the average; they excel in mental reproduction rather than in production; are superior in arts of conversation, more conservative and less radical; their vaso-motor system is more excitable; they are more emotional, blush and cry easier; are more often hypnotized; quicker to take suggestions; have more sympathy, pity, charity, generosity, and superstitions. Male crime to female is as 6 to 1, woman exceeding only

[1] Man and Woman.

[2] Adolescence, Vol. II, Chap. XVII.

[3] The Psychology of Woman. Pop. Sci. Mo. June 1895.

[4] The Condition of Woman from a Biological Point of View; two articles. Pop. Sci. Mo. June 1879.

[5] The Mental Traits of Sex. Chicago Univ. Press. 1903.

[6] Adolescence, Vol. II, p. 566.

in poisoning, domestic theft, and infanticide. She is about as superior to man in altruism as she is behind him in truth-telling, being more prone to ruse and deception. She is more credulous and less skeptical, more prone to fear and timidity, and has greater fidelity, dependence, reverence and devotion. She dresses for adornment rather than use. In savage and civilized life, her body is more often mutilated and she is more primitive. Her hair is long; she is more prone to wear ornaments which show wealth rather than to dress solely for protection or concealment; is still fond of feathers, skin, and fur, flowing garments, and partial exposure of person, so that she betrays rank and wealth more often than men. She still pinches her waist and feet; uses pins, powders, and perfumes, neck ornaments, beads, overshoes, and sometimes shoes that are not rights and lefts; is more subject to fashion; her work is far less specialized than that of man and less reduced to mechanism or machinery. Man is best adapted to the present; woman is more rooted in the past and the future, closer to the race and a more generic past. Thus again, in very many of the above traits, woman is far nearer childhood than man, and therefore in mind and body more prophetic of the future as well as reminiscent of the past".

Now, certain of these differences are without question conventional merely, and should disappear under a system of education where the ideals and standards are the same for women as for men. It is apparent that conventional differences between men and women should not be used against coeducation ; but they may, instead, indicate the need of just this system. As was suggested above, students of social affairs in the Old and in the New World appear to believe that the emancipation of women from oppressive conventions in America has been

of immense benefit to society. Is it not reasonable to suppose that her further emancipation through coeducation, which is certainly going on from one end to another of our country, will be of advantage, not only to woman herself, but to the entire social organism?

With respect to the vital differences in mental constitution between man and woman, it is to be noted that they are not after all so fundamental as many try to make out. Women have all the faculties involved in education that men have, only some of them are more and others are less completely specialized. Woman's attitude toward her environment is conservative, while man is more radical. Compared with him she can deal best with practical, concrete situations, requiring the use of memory and habit rather than analysis and constructive activity. In her emotional attitudes she is rather more active and centrifugal than her brother, and so she is less stable and consistent. In all animal life there are these typical feminine and masculine attitudes, and they have undoubtedly to be taken account of in training for life. But this does not of necessity require segregation. These different attitudes are provided for fairly well in our modern elective system, so that if there be a distinct advantage from some points of view in educating boys and girls in the same school, there need be no hesitancy in doing so because of these differences in their organization. As society is an organism with specialization of work and duties; so the school may preserve its organic character, and still provide for different powers and different needs.

It should be noted here that these special fem-

inine and masculine traits are of the nature of differentiations from general fundamental likenesses. So boys and girls have many abilities and needs in common, and much of their education should be the same, if there is any advantage in their growing up together. Thus they could and should pursue their arithmetic and their elementary history and science and language in the same way. No responsible person among us, so far as I am aware, claims that a girl should be taught physics, as far as she goes in it, by different methods from those employed with the boy. Because she excels in verbal memory is no justification for having her learn science out of a book, while her brother deals in a vital way with concrete facts. The latter may go farther in his study than the former; but this is a question of specialization in work, and not a difference in methods of presentation. The point is that if the school be an organism, presenting in microcosm all the activities of the larger social organism, then the girl may take the work best suited to her nature and needs, and the boy may do the same; and in much that they do they will work side by side, but in certain particulars they will work apart. This actually is the case in our higher coeducational schools today. In the universities, the men are going largely into engineering, commerce, law, agriculture, and applied science, and the women are turning to education and the arts; but in a considerable part of their work—their language, history, English, elementary mathematics, and the like,—they pursue the courses together. It is entirely erroneous to say that because girls are in a coeducational institution they must do the same work as

men. Nor is it true that in matters of discipline they must be treated just like the men. The girls have their rules of conduct suited to their needs and traditions, and the men go their way unhindered by the presence of the women. Men are not less athletic in a coeducational than in an exclusive institution. There are no educative activities found in either men's or women's colleges that are not found in coeducational institutions. I think it would be a reckless person who would say that the men in our coeducational colleges in America are less vigorous and manly than those in Eton or Oxford or Cambridge or the Sorbonne or Heidelberg or Leipzig or Berlin or the Universities of Bologna or Rome or Naples; and the same proposition in effect could be extended to the women in our colleges.

In the matter of temperament, there is, of course, a fundamental difference between the boy and the girl. The former is normally aggressive and independent; the latter is retiring and dependent. The former resists authority, and has a dull conscience in the matter of duties, while the latter is normally docile, and faithful in the performance of tasks. The former needs urging more than the latter; and often a method of discipline which would be wholesome for the boy would be harsh for the girl, even if she were only a witness to its application with the boy. In early adolescence boys need a firm hand in control, and often they could be dealt with more effectively if the girls were not about. Even if they are in the same school, and are together in part of their work, there would often be an advantage if they could be by them-

selves for a portion of the time, so that each could be dealt with according to special needs. It will not solve the problem to separate them completely, nor will it be best either to make no distinctions whatever between them. The one extreme fails to provide for special needs, while the other fails to take account of the good influences which one sex may exert upon the other. The situation is an exceedingly complex one, and it can not be dealt with wisely by pursuing one straight course or another merely to simplify administrative control. The latter consideration has been altogether too prominent in our educational work in the past, and especially in reference to this matter of the education of boys and girls.

### 6. *Limited Segregation.*

Our discussion has led us to the view that the principle of coeducation must be retained, but this does not mean that the education of boys and girls must be identical. All the evidence bearing on the problem indicates that the girl must not be required to keep step with the boy from the beginning to the end of her educational career. At times she can move faster, and at other times she must move more slowly. Particularly during early adolescence she should have more leisure than the boy requires; our present plan of crowding her through the course without regard to her peculiar needs is, to say the least, crude and unscientific. If we can not so modify our present coeducational schools as to permit the girl to take more time to complete the secondary school course, then it would be better, probably, to separate boys and girls during this period,

and adapt the work to the needs and abilities of each. However, the ideal plan is to have the one school, an organic unity, but sufficiently diversified and elastic in its program and general activities, to provide for the needs of both the boys and the girls. So far as it can be done without overtaxing the girl or undertaxing the boy they should work together in the same classes; but when it would be of advantage to have them work apart they should be separated. This can be done without establishing separate schools. Coeducation does not require identical education, though it has been so interpreted in the past.

It is to be noted further, that a certain amount of reserve between boys and girls is highly desirable during the secondary school period. An educational regime which would tend to obliterate this reserve would certainly work harm, if not directly and concretely, then subtly and indirectly at least, by disillusioning boys and girls. Nothing but ill results can flow from breaking down the ideals which the sexes naturally build up around each other during the adolescent period, and this is likely to occur when their relations are very free and easy. It is better that while in each other's presence there should be a certain spiritual distance between them. This will be altogether in favor of the proper sort of attachment later on. It is right that each should witness the work and character of the other as revealed in the impersonal situations of the recitation and study room; and this will be the highest incentive to each to do the best work possible, and to appear to the best advantage. To win the approval of the other sex is the greatest spur to earnest and

honest endeavor during the high-school period. Of course, if the interests of the other sex are of a trivial character; if the boy does not have high respect for the girl's ideals, and *vice versa*, then the one sex will exert a harmful influence upon the other, and it would be far better that they be separated. But if we can keep the sexes working together in the attainment of impersonal ends, such as the school stands for, then nothing but good can come from their constant association. However, if the work of the school should lose its hold on the boys and girls, and they should become interested in one another for mere personal reasons, then their education together will prove an evil. Their association would result in strengthening the evil tendencies of both. Under such conditions the girl becomes flippant and vain, and the boy more coarse and defiant. Whenever we can so manage a school that the legitimate work will occupy the focus of consciousness while the other sex will occupy only the margin thereof, coeducation will prove of marked value; but when this is not possible, separation will be desirable. So that coeducation may be eminently desirable in a small city where the people are homogeneous, while altogether undesirable in certain parts of a great city where many different nationalities are thrown together promiscuously. It may be desirable as a general thing in the northern part of our country while not so desirable in the southern part; though wherever separation is advisable, it will probably be required only during the tempestuous years of adolescence.

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The discussion was continued by Principal

E. V. Brumbaugh of the Marshalltown, Iowa, High School, as follows:

## COEDUCATION. THE CLEVELAND PLAN.

E. V. BRUMBAUGH, PRINCIPAL OF THE HIGH SCHOOL, MARSHALLTOWN, IOWA.

In preface to the initial discussion of the Cleveland plan, I might state that the standpoint from which it will be viewed is, first of all, that of the small country school. And, secondly, from the standpoint of one who is convinced that there is need for some change in the present plan of school administration, and who is convinced further that this change can best be secured by some plan of limited segregation.

That the question of the coeducation of boys and girls is by no means a settled question is very clearly shown by the renewed agitation and increasing importance given to its discussion in the educational and daily press, as well as by its position on the program of this Association.

The instruction of boys and girls above the elementary schools in the same classes may be described as a characteristic American custom. It is true that the system holds to a limited extent in English and Continental schools, but is nowhere there, the universal and ordinary method of school administration or management. The discussion of coeducation may therefore be confined to a study of the American plans and systems.

In the first place it needs to be made plain that the education of boys and girls in the same classes has been a development and growth, rather than a consciously devised plan of school methods

Originating as it did in the lack of school funds for the establishment of separate schools, and taking its strength through the western states, it has gradually spread as a custom, through the country, until today in the Central states, it would be difficult to find a public high school where coeducation is not the system in operation.

Through this development it has come to have all the prestige and weight that accompany any strong and established system of administration, and to change which may be a matter of great difficulty and which will need cautious methods of attack. There have already through the daily press been heaped upon some of the advocates of a different method of administration, the abuse and scorn of those who are wedded to the present system, probably through no reason other than that it is the system that is in use and to which they have been accustomed.

To deny that there are any advantages of the present method of mixed classes, would of course be absurd. There are many points in which the instruction of boys and girls together is to the great benefit of both, but on the whole it appears to a large and growing number of persons that the advantages of this system do not over weigh the points in which it is defective; and this body of students are demanding today that there shall be a change or adaptation of the present method of miscellaneous instruction in mixed classes, and a more scientific gradation of work and school methods.

The usual arguments and reasons offered for the present system of secondary instruction are, first, that it is a system economical of the money of

the taxpayers. In smaller places this argument is a valid and convincing one. In those localities and communities where the number of pupils is small, and the teaching staff limited this will be the final and convincing reason for the retention of the present system, but in all other cases further reasons for the present system will need to be advanced. The refining influence of girls upon boys is also one of the statements usually met with in discussions of this question, and the truth of the statement can scarcely be denied by one who is familiar with classes taught under some segregation plan and those under the mixed instruction method. There is no question that the presence of girls in the classes with boys, does result in a smoother order and discipline, a repression of the boistrousness (boyishness) of the male members of the class, in a suppression of his restlessness and desire to take into his own control the progress of the lesson, in a lowering of the voice and carefulness as to what is said. But the question of whether this so-called refinement and increased ease of discipline of the mixed classes which is thus seen to be secured through the repression of the individuality of the male portion of the class and a reduction to the feminine plane, is an education or rather an atrophy of the powers of a portion at least of the class is not so easy to answer in the affirmative.

Lastly a great point is made in the demand that there shall be equal opportunity for the boy and for his sister, and this is usually the citadel of defense of those who are in favor of the education of pupils in mixed classes. To those who make this point there is no reply if it is proposed to give

either the one or the other sex an education differing in purpose or in thoroughness. However if the purpose of the education of young people is to make better citizens of them, to prepare them better to live their lives and to transmit to their offspring increased power, knowledge, morality and strength of character and mind, then the question of whether this result can be accomplished better through the education of the different sexes in classes by themselves is merely a question of methods, understanding, and knowledge of psychology.

Until children reach the age of adolescence, there is little differentiation of abilities, pursuits, or nature, but with the onset of this period there comes into their natures something which causes them to draw away from one another and to isolate themselves from those of the opposite sex. This change takes place at about or near the age of entrance into the secondary schools and under the present system of classification these youth who naturally are seeking to avoid one another, are thrown into close contact in the study room, library, and class room. Their interests are different, their ideals as far apart as the antipodes. The maturity of the girls is usually from a year and a half to two years greater than that of boys of the same age. We are accustomed at present to grade our pupils into divisions by years. Some endeavor to further grade these of the same classes into sections of like mental ability. To carry the gradation but a step further we may then grade them into classes by sex. Surely no one will claim that there is less difference in ability between adoles-

cent boys and girls of the same age than between boys or girls of the same classes.

This separation of the classes allows of a better adaptation of the school work to the needs of particular pupils. It is a fact well known to all, that there are certain teachers who are particularly adapted to certain classes of pupils. This teacher may be very successful with boys, that one with girls, another may be efficient to bring up the slow or defective pupils. Under the present system of classification the teacher whose success lies with boys may have to devote half her time to the instruction of girls, to whose needs she may be indifferent or ignorant. Why should we waste half of this teacher's ability, when it is altogether possible to utilize the whole of it? There is no question that the girls of every school need as greatly as do the boys, the care and instruction of some teacher who understands their peculiarities and weaknesses as well as their strength and possibilities, and this too can better be accomplished through a division of the classes into sections of boys and girls.

It is not intended or proposed that there shall be a differentiation of studies. The elective system in general use in a large number of schools already provides the solution of this difficulty. It may be that it is wise for the girl and the boy to take the identically same studies. It is not necessary that their instruction should be the same, nor is it often wise that it should. It is seldom that we hear of a boy injuring his health through over study. It is not uncommon that his sister lays the foundation of permanent ill-health and disease through excessive and ill-advised application. It is not often

possible for a teacher to over-urge a boy to application to his lessons. It is the usual thing rather than the reverse for the girl of the class to take to herself reprimand and complaint because of poorly prepared lessons, where in the mixed classes the fault lies rather with her brother than herself.

Finally because of the fact that there are girls in the schools in the proportion of about three girls to two boys, and because of the further fact that owing to their greater application and faithfulness as well as to their greater maturity of mind and powers they rank in their classes higher than do the boys, they have thus decided and marked the average standing and kind of work of their classes, thus leading to a feminization of the schools. This fact is easily and markedly apparent to any person who visits classes in a secondary school where both mixed and segregated classes are held at the same time. That the girls should be allowed to make the greatest advancement that is possible will readily be granted, but is it right or just that they shall be allowed to determine not only the amount but also the kind of instruction for the boys as well as for their own sex?

To those who have had experience with both systems, there is no question that under the system of segregation, the members of both classes give a greater interest to their school work, a larger expression to their individuality, are less fearful of taking a stand and expressing their thoughts, and are more ready to defend a point upon which they have formed an opinion. It is true that in the matter of control of the class there is usually at the first an increased difficulty with the boys. It is the

testimony of those who have had these classes, however, that this difficulty has disappeared after the teacher has become acquainted with the needs and methods of handling such classes, which then give no greater trouble than any other sections.

Because of these reasons therefore as well as through a belief that the present system of mixed education is not the wisest for our secondary schools there has grown up in these central states a feeling that the present methods of coeducation in such general acceptance should be in some manner changed and reformed.

This belief has resulted in several different forms of change. Few if any cities in the territory of this association have erected separate schools for boys and girls. The belief in the need of a changed system has not yet carried the minds of the people of this territory to the point where they are ready to erect and maintain separate schools and faculties for boys and girls. Neither has it in the public secondary schools generally led to the establishment of annexes or separate faculties for the two sexes.

The movement for segregation rather has taken the form of the division of established classes by sexes either throughout the entire course or through a portion of the course. It has also taken the form of a separation of the boys from the girls while in the study-rooms—but with recitation in the same classes. This is the form referred to as the "Cleveland Plan."

As a step towards the solution of the problem, the working of the plan will be regarded with great interest, and a statement of the actual results from a school where the plan is in actual operation which

is to follow this introduction will be of the greatest interest and value. Any experiment for the bettering of the present system can not but have value even though its results be only negative in that it will show what dangers are to be avoided.

It would seem in view of the reasons which have already been offered, that to obtain the greatest good from a system of segregation, that system should present

1. Recognition of the fundamental differences between adolescent boys and girls.
2. More complete gradation than is ordinarily practiced at present.
3. Better adaptation to the needs of pupils through
   a. Adaptation of teachers to classes
   b. Differentiation of instruction for boys and girls
   c. Recognition of physical dissimilarity
   d. Avoidance of feminization of schools.

The Cleveland system seems to be weak in that it does not meet and provide for all of these difficulties. It does, it is true, recognize that there are differences between boys and girls, for it requires that they should be seated in different rooms for their study. Perhaps to a limited extent it does recognize that there is a physical dissimilarity, but in these elements only does it meet the requirements laid down for a complete system of segregation. It altogether ignores the requirement of a better or more accurate gradation into classes, through its plan of mixing the boys and girls for the recitation. Neither does it take into consideration the adaptability of the different teachers for instructing classes of the one or the other sex, and in its ignoring of this requirement is one of its greatest defects. In its failure to provide for the differentiation of the

instruction of the boys and the girls, it also offers almost as great a weakness as in the preceeding point, while in the last point mentioned, viz., the feminization of the methods of instruction and courses of study it offers no help whatever.

Wherever the Cleveland plan is possible, it is also possible to provide a plan which will meet all of the objections which have just been offered to it. The plan of complete segregation throughout the course offers great advantages. This may not be possible in every case. Where this can not be done, if any segregation at all can be accomplished and be of any value, the plan of limited segregation in classes for a period of two or three years is feasible, and through its greater adaptation to the needs of the situation offers a more complete and better solution of the problem.

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Following the reading of this paper, Principal B. U. Rannalls of the East High School, Cleveland Ohio, not being present, Principal Harris spoke as follows on the Cleveland plan.

If you will pardon me, I will state just a word from the chair as to the plan at Cleveland. The session rooms seat about fifty. The girls are seated in rooms by themselves, the boys by themselves, as stated here, but not separated in classes. This last year in one of the schools,—a large school where there were about eight hundred of the boys and eight hundred of the girls,—the plan was tried, or rather forced upon the administration, of having different classes for boys and girls in order to accommodate the manual training. Consequently there was an excellent opportunity to watch the

result in the class room—the question of this segregation. I had anticipated the boys would not do so well. On the contrary, I can see very little difference in the boys' rooms. The fifty boys are put into two divisions and classes recite by themselves—exactly the same line of work. The fifty girls are put into two classes and recite by themselves. As I said, I can see very little difference in the result upon the boys. I myself do not fear that trouble at all, of the control of boys. There was a difference in the girls. Much to my surprise, the girls are not doing so well. The girls' classes do not rank so well as the boys. We have the elective course there very largely, but many of the boys elect the line of work that the girls take, and there is a lack of the interest and enthusiasm in this class that we have had in other classes before. I shall certainly the coming year return to the old plan of reciting together. I firmly believe that when we have the coeducation at all, where they can be segregated in the session rooms, if we also segregate them in the class room without separating entirely the different line of work, we lose the benefit of the coeducation and we get the evils of the coeducation.

President Charles F. Thwing of the Western Reserve University, Cleveland, Ohio, then read the following paper:

## THE CO-ORDINATE PLAN IN THE EDUCATION OF WOMEN

CHARLES F. THWING PRESIDENT, WESTERN RESERVE UNIVERSITY, CLEVELAND, OHIO.

The Cleveland plan, so far as it touches Western

Reserve University, requires not argument, but interpretation.

The *historical interpretation* is simple. In the year 1888 the Trustees of Adelbert College of Western Reserve University determined no longer to receive women as students and also voted to promote the foundation of a college for women alone. Among the reasons of this action was the fact that most colleges of Ohio were, as they still are, coeducational. The need of another well established college of this type was, therefore small. The need of a college for women alone seemed to some urgent. In the growing sense of the confederation of educational forces, it appeared wise to establish such a college as a part of Western Reserve University.

The *administrative* and *executive interpretation* of the Cleveland plan is also simple. The College for Women of Western Reserve University has a Faculty of some thirty members, a body of students numbering about three hundred. It has given about five hundred degrees. Its equipment and endowment represent about eight hundred thousand dollars divided nearly equally between equipment and endowment. In Western Reserve University is also a college for men known as Adelbert College. It also has a Faculty of about thirty members, and also a body of students numbering nearly three hundred. It has, in the eighty years of its existence, come to represent certain ideals of scholarship, and these ideals are embodied in the customary forms of scholastic equipment. These two colleges exist in the same University, side by side, each with a Faculty, a body of students, buildings and equipment, each independent of the other.

Yet there is a degree of affiliation. The Trustees of these two colleges are largely the same gentlemen. The buidings of the two colleges are placed on adjoining lands; the scientific laboratories are used in common, the course of study is practically the same, which course is elective after the Freshman year. In the social relationship of the students, the ordinary principles and methods prevail.

I wish also to say a word regarding what may be called the *argumentative interpretation* of this general condition.

To argue that a co-educational college is the better or the best, or to argue that a separate college is the better or the best, or to argue that the co-ordinate college is the better or the best, is not wise. Such argumentation represents a form of general statement which does not apply to the practical condition of the training of boys and girls. Such argumentation is like saying blue ribbons are better than pink, or pink superior to white. Each is better in certain conditions.

It is a most happy circumstance that this principle of choice is not difficult of application. For colleges of the three chief types,—the separate, the co-educational, and the co-ordinate,—are available. In New England one finds colleges for boys alone, for girls alone, for both boys and girls, and also for boys and girls under the co-ordinate system, although the separate system is the more common one. In the Middle West the same condition obtains, although the co-educational type is the more common. In the Western West, co-education is the rule, but to it are found a few, and only a few, exceptions. In general it is just to say that there

is no difficulty in applying the principle of election in the choice of the co-educational, co-ordinate or separate type.

It is also to be said that this principle of election is constantly applied on other grounds than those embodied in sex. Reputation, rural or urban or suburban location, climate, not to speak of athletic interests, determine the choice of a college. One of the most useful and distinguished professors of Harvard College said to me that it fell to him to make the selection of a college for his nephews; one he kept at Harvard, and one he sent to Amherst. Pick out the college for the student, pick out the student for the college, in matters touching sex, as well as in matters touching scholarship and undergraduate atmosphere.

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The Englewood plan was next presented by Principal J. E. Armstrong of the Englewood High School, Chicago, as follows:

## THE ENGLEWOOD PLAN

PRINCIPAL J. E. ARMSTRONG, ENGLEWOOD HIGH SCHOOL, CHICAGO, ILLINOIS.

The plan of sex segregation in vogue at the Englewood High School, is based upon the fact that boys and girls grow at a different rate and their periods of growth and rest come at different intervals. Girls begin their transformations to womanhood about two years sooner than boys begin the corresponding changes to manhood.

The common law has long since recognized the fact that completed womanhood comes at eighteen and manhood at twenty-one. It is said that men and women usually find their true level in the world when they marry, and the very large majority of

such men find their life companions in a woman from two to three years younger than themselves. In the face of all this we have assumed that boys and girls from thirteen to seventeen were in all respects equal in mental ability, so we have taught them in mixed classes. But the girl of thirteen is taller and heavier than the boy of the same age. At about fifteen the boy begins a very rapid growth and soon overtakes and then exceeds the girl in height and weight. So rapid is his growth at this period that it is not uncommon to add six inches to his height and fifty pounds to his weight in a single year.

During the time of this rapid change for both sexes, the mental is as much transformed as the physical being. A new world opens to the adolescent youth. Consciousness of self—especially the inner self—becomes prominent. Now if these periods of awakening occurred at the same age in the two sexes, our problem in education would be much simpler. But when the boy and girl enter high school together, at about the age of fourteen, the girl has the decided advantage. She is two years more mature in body and mind. She is already a woman in seriousness of purpose, in power of application and in womanly instincts. The boy is but a playful little fellow, not yet weaned from marbles and peg-tops. He loves freedom from all restraints. He has a strong antipathy to the conventional ways of society. He is the despair of his fond mother and the dread of his former girl companions. He loves to tease or bully his younger or weaker companions. Soon he commences to grow and as he does so, nature makes such enormous drafts upon his stomach that he can do little but eat, exercise,

and sleep. During this period, it is difficult for him to concentrate his mind upon anything. He is especially lacking in will power. He knows what he ought to do, but is unable to bring sufficient will power to bear to start the machinery of action. It is during this lazy period that many a boy's career is spoiled by not coming under the influence of a strong "Thou must". The plan of many a fond mother to conquer the wayward boy by kindness and entreaties or appeals to high motives and the temporizing and compromising ways of many a school-ma'am are farthest removed from the course of treatment he most needs. He chafes under restraints and often prefers to do things the wrong way, if, in doing so, he can be independent. He is so independent of authority that he is sometimes dismissed from school, and even from home, for disobedience. In the class room he makes up, to some extent, for lack of preparation by being very attentive. On the written tests, he usually falls pretty flat, because a bright attentive eye or a little general talk will not so readily conceal lack of knowledge; and even if he knows the subject pretty well, he does not like to spend time writing it out in full. Tried by the girl-standard, he is very deficient, and certainly earns the reputation of being a "lazy boy". If he works with the energy of a steam engine while building a boat or in a game of football, he still fails to redeem himself from the reputation he has made in the girls' classroom. I say the girls' classroom because I think the class work has gone through an unintentional evolution to suit the needs of those in the majority of numbers and maturity of mind.

The girl of the same age is more tractable; she will take the advice of her teachers and parents as to what she should do and the way to do it. She is neat and painstaking. She delights in disciplinary studies, and especially in language and literature. Nature has bestowed on her some rare gifts. She has instincts and intuitions that seldom manifest themselves in the boy, and if her logical powers are faulty, she is capable of arriving at a correct conclusion and more quickly than he. Her sympathies are keener and her tastes more refined. Tried by man's standard for generations, woman was regarded by him as an inferior being. Man even now is apt to regard the intuitions of women of little value unless they can be reduced to a logical form; but alas for impetuous man, if not often held in check by the instincts and intuitions of a true wife or mother! Drummond suggests that "woman once"—in prehistoric time—"domesticated man". That is, woman, with the accumulated wisdom of ancestry, which we call instinct, and the subjective insight into the forgotten past, which we call intuition, was able to make better use of the experiences of the race than impulsive, headstrong, independent man, depending upon reason for his guidance? Her gentler nature tamed and subdued his wild nature, and so man became a domestic animal. There still remains much for her to do. Nature intends her to be the conserver of all that is good and helpful in the advancement of the race. She holds the keys to the treasure-house of the past. She keeps in check the impetuous, venturesome spirit of man.

Nature has made no mistake in so constituting

our children that the boy begins that marvelous change that transforms his physical and mental being into maturity several years later than his sister, nor is there any mistake that she completes her growth several years sooner. Nature intends him to be the bread-winner, the discoverer, the inventor, the mechanic, the jurist, the defender of the home and nation. Every trait of the boy nature prompts in these directions. It is only when we try to thwart nature by making our boys and girls alike that mistakes occur. If it is a fair assumption that man is to be pre-eminently the provider, the discoverer, the inventor, and woman the home-keeper, the care-taker, the child-trainer, the virtue-lover, the guardian of useful experiences of the race, how are we best to train each for his or her life-work? If the sexes are endowed exactly alike and are to preform such very different functions, surely they each need a different training ; and if they are differently endowed, as I believe most people admit, then still they need different treatment, whether they are to preform different or identical functions. Should a creature endowed by nature with marvelous intuitions have these powers crippled by a course in higher mathematics or other forms of logic? Is imagination strengthened by a long course in mechanics? Is the inventive faculty to be quickened by rules of grammar? Is the genius for discovery and invention strengthened by herding boys in the graveyards of the past? Yet these are our traditional methods. We teach our boys and girls the same studies in the same way.

Turning to the physical side again, it is a fact long deplored by physicians that we neglect to in-

struct these young people upon matters of the greatest importance, not only for their own health and comfort, but for the good of the race itself. Few teachers would dare to venture into this field in a mixed class, and if they should, their language must be so guarded that there is great probability of being misunderstood or of giving wrong impressions to an imagination already on fire with curiosity. Sensitive minds make undue personal applications, and coarse minds turn every reference to sex relations into obscene pictures. There is but one solution of this difficult but important problem and that is, through segregation, with plain talks in straightforward, Anglo-Saxon language.

It has long been a subject of study with me as to what can be done to prepare boys and girls to work even in parallel lines with equal advantages for each. I have accordingly divided all first year classes into boys' classes and girls' classes. Boys and girls assemble in the same division rooms or sit in the same study halls but when it comes to the recitations, they separate. The work in the class room is made to vary to meet the needs of each sex. This work has been going on now for over a year and the results are very gratifying. Some opponents of this scheme have opposed what they consider a serious objection to it, viz., that "since boys and girls are reared in the same family and since they are to associate throughout life, they ought to be taught in the same classes." In this they lose sight of the fact that in the home boys and girls in their early teens live lives quite apart from each other. The parents recognize this in supplying different books, games, companions, and differ-

ent chores. We would put the schools more nearly in line with the homes by varying the instruction just as the homes do. We have been surprised with the differences in characteristics of the two classes even after recognizing the general trend. We have supplied the lacking will power in the boys' classes without hurting the sensitive nature of the girl. It is a common complaint that the boy fails to do his written work in English satisfactorily. That is he postpones the task he dislikes. We help him in this by having this disagreeable part of the boys' work done in the class room, leaving more reading to be done outside. In the girls' class, where the willingness to talk is lacking, and the ridiculing boys absent, we get better class room work.

A teacher who has in second year English the classes that were segregated during their first year, reports that he never had a class in English in which the boys could compete so successfully with the girls, as they can in this class; and a teacher of Geometry reported that she never had a class in Geometry that seemed so uniformly good. These two examples may not prove the case to the mind of a skeptic, but they certainly point to the quarter in which we are looking for improvement.

Now I would call attention to the fact that this plan differs from that of complete segregation as found in the schools of the old world and in some of the eastern states, since it preserves the healthful social influence of the sexes over each other. The same social relations between the sexes remain as in society outside the school, except that it is more limited, and what might be called second-

ary courtship or the instinct of the boy to show off and the girl to approve by giving attention to boys' nonsense, is cut off from the recitation. I believe the social influences of coeducation are its chief benefit and by our plan this is preserved by not removing the sexes to different buildings.

This plan also differs radically from the Cleveland plan which separates pupils in the study hall but not in the recitation. In this the difference in maturity, aims, and methods, gives place to the one feature of reducing social intercourse which I consider natural and under proper restraints desirable.

Now as to the time when this separation should begin and how long it should continue, I would say that it should begin with the beginning of adolescence and be carried possibly to the end of the second year of high school;—that is from about the beginning of the 7th grade to the end of the 10th,—four years. This would provide special instruction for each sex during the period of rapid growth and uneven development.

I think it quite a significant fact that the parents of the pupils of the Englewood High School have heartily endorsed this movement. There seems to be a common feeling that there is a boy problem and a girl problem that the parents are seeking to solve. Coeducation in the early teens is not solving this problem to the entire satisfaction of the fathers and mothers. By a vote of two to one they asked the Board to try it, and by a vote of nine to one, after a half years' trial, they have asked to have it continued. It is also a matter of some significence that the chief opponents have been women

who feared that in some way this scheme is going to militate against the advancement of women. We have guarded as much as possible against this by assigning both a boys' class and a girls' class to the same teacher. In this way each teacher has an opportunity of studying the needs of each sex and no partiality is shown to either. Let us remember that complete segregation existed before coeducation and that the latter came about chiefly as the most economical method of conducting a school. This same reason will probably forbid a return to complete segregation even if that were desirable. But in every large high school it will always be possible to separate the sexes during the first one or two years just as economically as to teach them in mixed classes.

It seems to me that we are failing to reach the needs of our young people at the beginning of adolescence in mixed classes by not being able to push the vigorous distinctions of the complementary relations of the sexes. The ideal for woman should be not to become a business man, nor yet even to look at life in man's way. Neither is it desirable that man should lose the virile traits that characterize this sex. From the dawning of life on the earth, sex has become more and more differentiated. The earliest forms of both plants and animals were *without* sex. The higher up the scale of life we go the more complete the differentiation. Among savages we find men and women most alike in mental and physical characteristics. Are we not interfering with this higher evolution of sex when we attempt to train our boys and girls in the same way.

It seems to me that segregation, as I am trying it, is but a further step in the grading system by which I have gathered those of like training together. I believe the evolution of text-book making has brought about the use of studies ill adapted to boys' needs. Many a boy loses interest in school studies because study has lost so much of its charm for him by being adapted to the girl mind and because of the discouragement of competing with the mature girls. Possibly many a boy is driven from school, not because money is a necessity, but because of the lack of mental stimulus. Girls have suffered less, I believe, because they more readily take advice, and, because, being in the majority of numbers and mature of mind, the studies have been changed to suit their needs.

I believe the *first benefit* to be derived from segregation *will be to hold more boys in school* and second, to drive us to better teaching, since a teacher must study her pupils more than before. If we could lay aside any fears we may entertain that segregation is going to deprive woman of the fruits of the splendid victory she has won in securing the right to an equal education with man, we may learn how to push her success one step higher. If I thought that segregation would in any way lessen the chances for my daughters to obtain an equal chance with my sons, I would be the last person to wish to put it into the schools; but I am more and more impressed with the fact that *equal rights* are not *identical* rights and that to help our boys and girls fully to attain their highest usefulness, is *to train them* at the *outset* of *manhood* and *womanhood* to *obey* the instincts that lead men to become more manly and

women to become more womanly, and to train each to specialize so there shall be one distinct type for the noblest manhood and another for the most superior womanhood.

Principal W. J. S. Bryan of the Central High School, St. Louis, Missouri, presented the Boston plan in the following paper:

## THE BOSTON PLAN.

BY PRINCIPAL W. J. S. BRYAN, CENTRAL HIGH SCHOOL, ST. LOUIS, MISSOURI.

I am sure I do not know why I was selected to present the Boston plan. I have thought about it considerably and have concluded that it was because I was far enough away from Boston to look upon it with an impartial eye. I endeavored to ascertain from the Superintendent of the Boston Public Schools what was the Boston plan, and it seemed to him to be a revelation that there was such a thing; he denied knowing its existence. I was therefore obliged to look for the historical basis.

Up to the year 1790 there was no provision for the education of girls in Boston. The Latin grammar schools and the public writing schools were designed for boys exclusively. An English grammar department was then added to each of the three public writing schools, and for the first time provision was made for girls to attend these schools for six months and no more each year. This arrangement was continued until 1828 without change, except an increase to eight months in the duration of the attendance of girls. In 1828 the privilege of attending the whole year was granted to girls. In 1830 a committee appointed to inquire whether es-

sential improvements might not be introduced by a modification of the then existing system or by the adoption of some other, brought in a report favoring the entire separation of boys and girls and designating certain schools in different parts of the city for boys or girls exclusively. By a resolution adopted February, 1833, two grammar schools were designated for boys and two for girls exclusively, while the other five grammar schools were left for the use of boys and girls alike. To quote from the majority report of a committee appointed March 28, 1890, "to consider and report upon the subject of coeducation of the sexes, with special reference to future buildings". "Thus was rooted in the school system of Boston an error which may take years to fully eradicate. Thus this city of Boston hampers more than any other city the rightful advance of girls and lessons the refining influence on boys by this separation of the sexes."

In 1825 a High School for girls was opened in Boston. The city council appropriated $2,000 for the experiment, but before the end of the second year the school became so popular, the pressure for admission was so great, and the expenditure which it threatened so alarming, that the school committee, under the lead of the mayor, Josiah Quincy, abandoned the project. The subject was not revived until 1848, when a separate High School for girls was established on a permanent basis. This school had a normal department and was in fact an outcome of the movement for improving the teaching service of the public schools. Here is a remarkable instance of an experiment in education so popular and so successful that it is abandoned by the

community for fear of the expense of maintenance, and is not revived until nearly a quarter of a century later, and then not for the good of the individual pupils to be educated but as a preparation for services to be rendered the community in the training of others. The idea that education at public expense is the birthright of boys and girls as prospective citizens of a civilization in which they must live and move and have their being is of more recent universal acceptance than one might suppose if he were acquainted only with existing conditions and knew nothing of the origin and establishment of such schools. Surely there has been wonderful progress in regard to public education, and well may we glory in a land and time in which education, the fullest and best, is urged upon every child without regard to parentage, or sex, or condition; in which accidents of birth and fortune are not permitted to determine or preclude the development of individual endowment to fulness of efficiency.

The Boston system is no longer consciously prejudicial to either sex, but it must be apparent that it originated in the prejudices of a day when the education of girls was considered of little moment and a measure of questionable public policy, and that it is directly traceable to the vague fear that certain evils and dangers might arise from coeducation, although they had not been encountered in actual experience. Now, out of 628 cities Boston is one of twelve reporting separate public high schools. At the present time there are the Latin School, the English High School and the Mechanic Art School for boys, and the Latin School and the English High for girls, and the South Boston High School, and

the East Boston High School, and seven other schools, formerly suburban, for both boys and girls.

The sentiment and practice of the entire country are overwhelmingly in favor of coeducation, and it would seem a settled question, requiring neither argument nor further experiment for its decision, were it not necessary at times to reassert long established principles whose validity is questioned, and to set down in order the reasons drawn from psychology and experience on which such principles rest.

What, then, is coeducation in theory and practice?

It is education without discrimination or separation as to sex, under such restrictions as are imposed by considerations of morality and refinement and established social customs.

In practice this means for secondary schools—

(1) That the youth of both sexes are taught the same studies, by the same teachers, in the same rooms at the same time.

(2) That they study in the same rooms or in different rooms. That seems to me to be a matter of individual choice of school management.

(3) Their physical exercises are directed by one of their own sex in separate rooms, and are adapted to their respective physical characteristics and needs.

(4) That they meet and converse with each other naturally in the corridors and rooms when changing classes.

(5) That they lunch in separate rooms or in the same rooms, and at the same tables or at different tables as conditions suggest.

(6) That they form separate or combined musical and literary organizations with the counsel and advice and under the control of the principal and teachers co-operating with him.

(7) That they form separate athletic organizations with the approval and subject to regulations of the principal or faculty representative appointed by him.

(8) That they enjoy certain known and approved social occasions during the last year or two of their course.

Some of these features are local or transient and not at all essential to coeducation, which existed for a long time without them and is independent of them and not responsible for them, but they characterize coeducation in most of the large city high schools.

In the public schools separation of boys from girls or of boys or girls from other boys or girls whose course of study is different is unwise. This is the mistake made in the establishment of Manual Traing High Schools or Commercial High Schools or Latin Schools or English High Schools. Such separation presupposes essential differences which do not exist between pupils of these schools, gives rise to false distinctions, emphasizes unduly certain studies, and overlooks the preponderant basal elements of similarity, predisposes young people to certain lines of activity for which they perhaps have no special aptitude, and greatly increases the cost of equipment. Far wiser and better is the plan which provides for all recognized branches of secondary study in fully equipped high schools in which students of all courses meet and mingle and com-

pare notes while pursuing special courses of study in some subjects and the same courses in most subjects, and so learn to estimate justly the value of the various studies and to recognize the possible avenues of activity while testing somewhat their own ability.

It is my observation, from more than thirty years' connection with a large city high school in which coeducation has been the constant plan, that sex distinctions are physical rather than intellectual and are not so predominant as some assert. Mind is sexless, though not uninfluenced by the physical nature.

It is easy to charge with lack of discernment those who fail to discover differences so essential as to require separate and special treatment of the sexes as such at the hands of teachers, but an adequate statement of these differences and of the methods of teaching that correspond to them had not been made. The mental differences observable between boys and girls are not greater or in fact so great as the differences between boys and boys. The plea for special treatment is insistent at this time, in keeping with the demand for individual instruction as opposed to class teaching, which is put forth as though some new discovery had been made or a new revelation of pedogogic truth had been received. Whereas the fact is that every successful teacher, and there have been many, has addressed himself successively to individuals in his classes, and the many composing the classes have learned while the individuals were taught, much more rapidly and thoroughly than they could have done with private instruction. Minds by contact and

attrition of other minds are made keener and quicker and more retentive. It is my experience that minds are not so different that a clear presentation of a subject is unintelligible to the individuals composing a class. It is hard to conceive of a number of pupils who have had similar training for a number of years and have reached the high school grade, as unable to profit to the full extent from a cogent presentation of a subject adapted to their stage of advancement. No two minds derive exactly the same impressions from subjects studied, but the margin of difference is after all small in comparison with the mass of resemblance.

How much of that which appears as sex differentiation is conventional and not natural, the result of past and present social customs, local prejudices, popular fallacies, ethnic ideals deeply rooted in the long buried past? The restraint of ages can not be forgotten or thrown off in a day. The little tot soon hears the mother's injunction, thenceforth to be repeated over and over again, "Be a little lady", "O, be a man". Line upon line, precept upon precept, here a little there a little, do not fail of their purpose in shaping the character of the boy and girl. We would not have it otherwise, for the hope of the race is bound up in the power of education, the educability of the young; but we must not mistake effect for cause, or cultivated differences for natural tendencies.

Overdrawn pictures of the bashfulness and timidity of boys in the presence of girls, of the listlessness and passivity and receptivity of girls, coupled with lack of initiative and originality, of sex tension and sex consiousness, and sexual distractions, my

experience as a pupil and observations as a teacher enable me to detect and correct. Given a mind imbued with a specific theory, and it will be strange indeed if it does not distort objects presented into shapes in keeping with the outlines of its dreams. The judicial attitude is far rarer than the feeling of prejudice, and the prejudiced mind is all unconcious of its limitations. While every teacher who studies his pupils learns their individual peculiarities, I doubt whether it would be practical to substitute for this knowledge any conception of sex differentiation. In so far as truth, because it is truth, is comprehensible by normal minds which must move logically, if at all, the sex of the pupil is a matter of comparative indifference. Prepare the girl for the house-wife's duties instead of for the fullest possible life and she may become wife and mother, physically speaking, but not the associate of the cultivated man, his companion in spiritual growth and intellectual advancement. Prepare her as a human being for continuous growth and abundant life, and whatever her state, she will not become an instance of arrested development. Motherhood, great its responsibilities, holy its office! but womanhood has still broader significance. Prepare for possible wifehood and motherfiood by preparing for womanhood in all the reaches of its spiritual power, and purity and loveliness. Just as you prepare for fatherhood by training every useful endowment for the perfection of complete manhood. The physiological aspect of fatherhood and motherhood are different, but the best preparation for either is the highest development of the whole being, physical, mental, moral, spiritual.

Are there peculiarities of the sexes, is it desirable that they should be intensified by special training so that to natural differences artificial distinctions will be added? Has it been found necessary for teachers to use different methods in teaching the same subject to boys and girls? Is the pace set by boys too swift for the girls? Is not the pace set by the girls of a class quite as often as by the boys? One of the best results of coeducation, as I see them, is the clarification and correction of the obscure views that the sexes would otherwise acquire and retain of each other. From daily comparison of ideas expressed in the recitation room about a wide range of topics under consideration there must result, I am convinced, a just estimate of the powers of observation, conception and judgment possessed by each sex, an estimate hard to confuse.

This is a day of specializing. The directions for success are "Learn to do at least one thing excellently well", that is, better than any one else, then they say success is assured; but I pity the man who thinks it possible to do surpassingly well anything worth while if he has not laid a broad foundation of intellectual and spiritual development. The thinner the wire the greater the height to which a given mass will reach if sustained from above, but the sooner it will fall or bend to the ground if left to sustain itself. Divine foreordination is not a generally accepted tenet, but human foreordination, which by early specialization before maturity of judgment bestows the power of wise choice determines the future occupation, is not without its devotees.

Education, I would urge, with all possible force,

ought to seek to discover and develop the powers of body and mind and spirit for fulness of life and efficiency of service, and unless it can be shown, as some assert, that such development can be secured best when boys and girls are separated altogether or during hours of recitation, I shall cling tenaciously to the system of coeducation which has resulted in the relatively exalted position accorded women in America as distinguished from all other lands, which has given us manly men, not less forceful and masculine, if gentler and more respectful of the claims of womanhood, which has not deprived womanhood of any or its charm or loveliness, or robbed it of delicacy or purity of action, thought, or imagination, while giving woman an opportunity for the development of intellectual vigor, independence of thought, and the spirit of scientific investigation, which has taught men and women rightly to esteem each other for the mental and moral endowments actually possessed rather than for imaginary gifts and graces and attributes of heart and head.

Professor Albion Small of the University of Chicago presented the Chicago University plan:

## THE CHICAGO UNIVERSITY PLAN

PROFESSOR ALBION SMALL, UNIVERSITY OF CHICAGO, CHICAGO, ILLINOIS

Coeducation at the University of Chicago is, in principle and in practice, an attempt to put at the disposal of both men and women, on perfectly equal terms, the best that the University affords. The attempt is mortgaged to no fetiches, either of tradition or of theory. We know that the needs of one man differ from those of another who would be put

by the census taker in the same class. We know that the same is true of two women of closely similar types. Along lines not wholly parallel, the needs of groups of men and of corresponding groups of women are never precisely identical. We know that it would be more absurd to assume that the academic experience which would be the best, either for men or for women, under certain circumstances, would therefore be the best under all circumstances, than it is to assume that the one hundred books which a given wise man selects as the best in literature are the "hundred best books" for each and every member of the human family. The best book for a given individual is the book which will do the most to promote that particular individual's mental life. The best co-education, like the best education without prefix, is an open minded endeavor to offer the conditions which will best promote the total life of all the different sorts and conditions of people concerned. It must accordingly be first of all a determination to live and learn what those conditions are. It must not be dominated by implacable dogmas of any sort. It must be more interested in live boys and girls, men and women, than in precepts and formulas. It must be teachable, resourceful, and flexible.

We do not claim that we have reduced these specifications to an exact science. We do not imagine that we have discovered rules fit to serve as models for any one else. We are carrying on our particular experiment by using all the means at hand, with the best wisdom we have.

In a word, everything that our Junior College offers is open to all boys and girls who present prop-

er high school credits or pass examination for fifteen preparatory units. Everything in our Senior College is open to all students who have obtained eighteen majors of Junior College credit. Men or women who have passed their twenty-first birthday, but who cannot present credits for our regular requirements, may register as unclassified students in any courses for which they can show that they have had the necessary training. All men and women who hold a Bachelor's degree from a respectable college are admitted by that fact to the full privileges of our Graduate Schools. In case the preparatory and college work of persons admitted to the Graduate Schools on the strength of Bachelor's diplomas, appears to have fallen short of our requirements for the Bachelor's degree, the deficiency must be made up before admission to candidacy for a higher degree. In general then nothing except the ordinary proprieties of society draws lines between men and women in equal freedom of enjoying full liberties under these provisions at the University of Chicago.

There is a single departure from this rule. In our Junior College, we have virtually the group elective system. There are five distinct curricula, with a certain range of variation in each. After election of the group the studies for the freshman and sophomore years are in an extremely elastic sense of the term prescribed. Whenever the number of students in one of the courses thus required is sufficient to demand duplication of the work in the same quarter, the division is made on the line of sex, and the class rooms for men and for women are in buildings two blocks distant from each other. It should be added that the weekly chapel services for

the Junior College men are held on Mondays and for the women on Thursdays.

We have not entered upon a crusade to convince the world that this device constitutes a pedagogical cure-all. We have not even convinced *ourselves* that this is the case. Possibly it is not destined to be even a contribution to knowledge of the problem. It is not yet scientifically demonstrated that, on the subject of co-education, it is possible to change an opinion once formed. We are therefore content to use this device for what it is worth, simply because the majority of us believe it is on the whole, in our situation, expedient.

The reasons for this opinion may be reduced to two:—First over crowding of our class rooms made some sort of division necessary; Second, in the judgment of the majority a sex division would be salutary, because we thought we detected in our particular circumstances a tendency to overstimulation of the social interests in the Junior College years.

There is not the remotest danger that any student in the University of Chicago will suffer atrophy of normal interest in the opposite sex because of this partial separation. The average boy or girl in our Junior College probably has better social opportunities than the average young person in Chicago enjoys outside the University.

The following statistics are worth what they are worth as an index of the relative prominence of the device described in the aggregate of our University life. For lack of a better word I use the term "segregation" in explaining the figures. In the Spring Quarter of 1906 the total registrations of

men in the University were 3098; of women 2713. Of this number 133 registrations of men, or 4.$\frac{8}{10}$% and 115 registrations of women, also 4.$\frac{8}{10}$%, were in "segregated" classes. These facts are presented analytically in the following table. The figures in parenthesis indicate the number of classes into which the registrants were divided.

SPRING QUARTER, 1906

| | Men | Women |
|---|---|---|
| Latin | 15 (1) | 29 (1) |
| Romance | 79 (4) | 47 (2) |
| German | 0 | 0 |
| English, | 39 (1) | 39 (1) |
| | 133 (4$\frac{8}{10}$%) | 115 (4$\frac{8}{10}$%) |

In the Autumn Quarter of 1906 the total registrations of men in the University were 3405; of women 2884. Of this number 601 registrations of men, or 17%, and 508 registrations of women, also 17%, were in "segregeated" classes. The analytical table follows:

AUTUMN, 1906

| | Men | Women |
|---|---|---|
| Pol. Sci. | 39 (1) | 30 (1) |
| History | 64 (2) | 71 (2) |
| Latin | 30 (2) | 44 (2) |
| Romance | 88 (3) | 48 (3) |
| German | 63 (4) | 74 (4) |
| English | 264 (5) | 228 (5) |
| Math. | 53 (2) | 13 (1) |
| | 601 (17½%) | 508 (17½%) |

In the Winter Quarter of 1907 just closed, the total registrations of men in the University were 3501; of women 2785. Out of this number 306 registrations of men, or 8.$\frac{1}{10}$%, and 217 registrations of women. or 7.$\frac{1}{10}$%, were in "segregated" classes. The details are as follows:

WINTER, 1907

| | Men | Women |
|---|---|---|
| History | 36 (1) | 28 (1) |
| Latin | 17 (1) | 9 (1) |
| Romance | 98 (5) | 58 (4) |
| German | 54 (3) | 25 (2) |
| English | 81 (2) | 82 (2) |
| Math | 20 (1) | 15 (1) |
| | 306 ($8\frac{1}{10}$%) | 217 ($77\frac{1}{10}$%) |

The policy of the University of Chicago is to continue the application of this device in the Junior College but not to extend it to other divisions of the University. No sufficient reason for such extension is known. The plan contemplates a quadrangle for Junior College men, and another for Junior College women, in each case with dormitories and all other necessary buildings for complete college life.

We believe that there is no good ground for the objection which has been urged that this plan tends toward a monastic regime. Our judgment is that it provides for a due proportion of that reserve between young men and women of the Junior College age which is as important an element in their education as frank association.

The Northwestern University plan was presented by Dean Thomas F. Holgate of Northwestern University as follows:

## THE NORTHWESTERN PLAN

DEAN THOMAS F. HOLGATE, NORTHWESTERN UNIVERSITY, EVANSTON, ILLINOIS

There is at the Northwesten University nothing of so distinct a character as to be properly called a plan of co-education apart from what is generally

understood by that term. In common, however, with other institutions of similar aim we have been giving attention recently to some of the problems that arise under the changed conditions incident upon the constant and rapid increase in the number of young women in co-educational schools. Whatever may be the reasons for this increase, which in most institutions is marked, certain it is that the conditions of co-education are quite different now from what they were twenty-five years ago or even ten years ago.

In most co-educational colleges the number of women now nearly equals the number of men if indeed it does not exceed it. This may not be a condition to be regretted, for none of us would deny to young women the best training that our best equipped colleges and universities afford, but that a new situation is presented must be recognized.

Education is in a large part social, and in co-education the social element is likely to assume undue proportions. The introduction of a few women into the men's colleges had a humanizing effect and was beneficial to both sexes; but the greatest benefit to both sexes, in my judgment, accrues when the number of young women does not exceed fifty per cent, or thereabouts, of the number of men. With a preponderance of women the men are apt to be called upon to give too large a portion of their time and attention to social duties, or through gallantry and discretion, to withdraw from prominent part in student activities and surrender the field to the women who are their equals in the class room and their superiors in grace and attractiveness. They accept the theory that it is not good for man

to be alone, but most normal men or college age covet an opportunity once in a while to meet each other as men under conditions in which they will not be overawed by the superior numbers or the superior brilliancy of women.

I remembered, while this discussion has been going on, of the satisfaction with which I sat one day at a table in the waiting room at Marshall Field's. That table was labeled, "This table is for men exclusively". I was not likely to be disturbed. And, Mr. President, I want to say that I will not take second place to any man in my admiration or regard for women, either. Man likes sometimes to be alone. Recognizing this fact, the college men of Northwestern University, faculty and students working together, undertook to find a solution. The women have their halls which afford a meeting ground for them and where centre their common interests as women in distinction from their interests as students. The first step taken by the men was to form a men's club and secure for themselves a building in which club rooms might be open at all times and where men's gatherings might be held at stated intervals. Here the men do their loafing without fear of molestation, but there is nothing distinctive in this. Other institutions have the same provisions and much more elaborately worked out. I mention it only to show the trend.

Our daily chapel service is held at noon. All students attend at least three-fifths of the time, unless they are specially excused. Men who are paying their own way by their own efforts and who need to be elsewhere at chapel time are freely excused with the result that from a hundred and fifty

to two hundred men scarcely, if ever, appear at the service. This, added to the greater faithfulness of women in the performance of all perfunctory duties, gives an excess of women, in appearance at least, at the daily student gatherings. A natural consequence is that the service itself has a tendency to become a woman's service, not attractive to men, and to offset this tendency about a year ago we tried the experiment of holding chapel services for men and women separately on one day of each week. These separate services have been greatly enjoyed by the men but met with a mild protest at first from the women. I believe that these separate gatherings of men have been helpful in promoting a unity of feeling in matters that pertain to the development of the manly qualities. Whether or not this experiment could wisely be carried further I do not know, but the conditions and the results I think have justified it so far. We are not trying an experiment in separate education, but recognizing the fact that the manly qualities are different in many respects from the womanly qualities which should be cultivated, we are trying to afford an opportunity for the assertion of these in a proper and commendable way. The danger of co-education where it is accepted cordially and is at its best is not the masculinizing of the women but the feminizing of the men. Heretofore the greatest concern in co-education has been for the women. I think the time has come when more attention should be paid to the men.

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In the general discussion engaged in Principal Armstrong spoke as follows:

One point spoken of, first, by Professor O'Shea in regard to ninety-five per cent. of the high schools being coeducational. We must bear in mind that that has reference to the complete separation of the schools into boys' schools and into girls' schools, and it does not contemplate nor consider at all this matter that has been presented by at least two of the papers of having separation during the early years of the high school, and that they should be together in all the social relations of the high school and separated only in the class room. Professor Jordan, in an article in which he replies to President Stanley Hall, admits that there is a problem in regard to the separation of the boys and girls in the early teens in the high school, but he declines to discuss that and confines himself to the discussion in the college.

There is no fear from deterioration of the scholarship of the girl. She has every advantage in that line.

In regard to the difference between the American and European woman, again it comes up in regard to the complete separation. In fact, it seems to me that all the opposition which has been raised to the segregation as we are considering it in some of the schools is simply the opposition to complete segregation, and I would be just as firm in my opposition to complete segregation as any of them.

I would like to emphasize the fact that the relations of young people in the high schools, the beneficial relations, all that which is claimed for coeducation, is the social rather than the intellectual. It is the parallelism that we are trying to find be-

tween the girl mind and the boy mind and to prevent this matter of having the identical line required.

I would say, also, in regard to the discipline of boys' classes, that the first impression is, of course, that it is difficult to manage the boys' class, and I think a good deal of that is due to the fact that we have tried to manage the boy in the girl way. So just as soon as we can get away from that idea and realize that the boys simply rush pellmell in any way they get started and if they do not hold together we will have trouble with discipline; but let the class hold together, so that the boys feel that they are getting somewhere, there is no trouble. In fact, the teachers who have tried both prefer the boys' class, because of the greater interest in the class, because of the spontaneous nature of the boy, and I am very sorry that my friend Mr. Harris has given up because there is some loss in the girls' class. Of course there is at first, but we have to find the needs of the girl and find out how to teach the girl when the boy is absent.

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Following this discussion the Executive Committee presented a second report, which has been embodied in the one given on page 18.

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The Auditing Committee reported as follows:

The Auditing Committee met yesterday and looked over the accounts presented by the Treasurer, Mr. J. E. Armstrong. We found them kept in a very careful, exact, and systematic order. It was an easy matter to see that they were correct. We have made an entry at the close of his books signi-

fying to that effect. There is a balance of $246.56 in the treasury.

W. W. Boyd,
G. W. Benton,
Frank Hamsher.

On motion the report was adopted.

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The committee on the time and place of the next meeting reported as follows:

The committee on time and place recommend that the next annual meeting of the Association be held at the Auditorium Hotel, Chicago, the date to be selected by the Executive Committee as near the first day of April as may be practicable.

Frederick L. Bliss,
Marshall Snow,
H. H. Cully.

On motion the report was adopted.

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The President announced the appointment of the following as members of the Commission from 1907 to 1910:

President James H. Baker, University of Colorado, Boulder, Colorado.

Professor A. S. Whitney, University of Michigan, Ann Arbor, Michigan.

Professor F. G. Hubbard, University of Wisconsin, Madison, Wisconsin.

Principal E. L. Harris, Central High School, Cleveland, Ohio.

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The Committee on Nominations recommended the names of the following officers for 1907-08:

FOR OFFICERS FOR THE YEAR 1907-1908

President, President E. J. James, University of Illinois.
Secretary, Dean T. A. Clark, University of Illinois.
Treasurer, Principal J. E. Armstrong, Englewood High School, Chicago.

## VICE-PRESIDENTS

WISCONSIN

President G. L. Collie, Beloit College
State Superintendent C. P. Carey, Madison, Wisconsin

MICHIGAN

Professor W. R. Beman, University of Michigan
Principal F. L. Bliss, University School, Detroit, Michigan.

OHIO

President Emory W. Hunt, Denison University.
Principal Charles D. Everett, Columbus.

IOWA

President J. H. T. Main, Iowa College, Grinnell, Iowa.
Principal F. L. Smart, Davenport High School.

ILLINOIS

President Abram W. Harris, Northwestern University.
Professor Charles A. Bennett, Bradley Polytechnic Institute, Peoria.

MISSOURI

Dean C. M. Woodward, Washington University.
Principal Frank Hamsher, Smith Academy, St. Louis.

NEBRASKA

A. E. Reed, Inspector of Schools, University of Nebraska.
Principal A. H. Waterhouse, Omaha High School.

INDIANA

Professor C. A. Waldo, Purdue University, Lafayette.
Rev. W. O. Maloney, University of Notre Dame, Notre Dame.

KANSAS

Professor W. H. Johnson, University of Kansas.
Principal H. L. Miller, Topeka High School.

MINNESOTA

George B. Aiten, State Inspector of High Schools, Minneapolis.
Principal L. H. Beebe, Stillwater High School.

COLORADO

President James H. Baker, University of Colorado.
Principal W. H. Smiley, Denver High School.

OKLAHOMA

President David R. Boyd, State University.
L. W. Baxter, Superintendent of Instruction, Guthrie.

SOUTH DAKOTA

M. M. Rainer, Superintendent of Public Instruction, Pierre.
C. E. Swanson, Deputy State Superintendent, Pierre.

NORTH DAKOTA

President Webster Merrifield, State University.
W. L. Stockwell, State Superintendent of Public Instruction, Bismark

MEMBERS OF THE EXECUTIVE COMMITTEE

Principal E. L. Harris, Central High School, Cleveland.
Dean J. V. Denny, Ohio State University.
Principal George W. Bennett, Shortridge High School, Indianapolis.
Dean A. E. Ross, State University of Missouri, Columbia.
And the President, the Secretary, and the Treasurer, *ex-officio*.

On motion the report was adopted and the persons nominated were declared elected.

The Secretary was instructed to ask for a report from the commercial department to be presented at the next meeting of the Association.

President Harris then called for President James, but not finding him present pronounced the work of the Association closed.

On motion the Association adjourned.

THOMAS ARKLE CLARK, Secretary.

# LIST OF MEMBERS.

## INSTITUTIONS.

(c. m. means charter member.)

### OHIO.

Ohio State University, c. m., Columbus, President W. O. Thompson.
Western Reserve University, c. m., Cleveland, President Chas. F. Thwing.
Oberlin College; c. m., Oberlin, President H. C. King.
Ohio Wesleyan University, c. m., Delaware, President Herbert Welsh.
Denison Universiry, '99, Granville, President Emory W. Hunt.
University of Cincinnati, '99, Cincinnati, President C. W. Dabney.
Miami University, '04, Oxford, President Guy P. Benton.
Central High School, c. m., Cleveland, Principal Edward L. Harris.
Hughes High School, '96, Cincinnati, Principal E. W. Coy.
High School, '96, Toledo, Prinipal W. B. Guitteau.
Walnut Hills High School, '99, Cincinnati, Principal W. Taylor Harris.
Woodward High School, '99, Cincinnati, Principal Geo. W. Harper.
West High School, '00, Cleveland, Principal Theo. H. Johnston.
East High School, '02, Columbus, Principal F. B. Pearson.
University School, '02, Cleveland, Principal Geo. D. Pettee.
South High School, '02, Cleveland, Principal G. A. Ruetenik.
Lincoln High School, '02, Cleveland, Principal J. W. McLane.
East High School, '02, Cleveland, Principal B. U. Rannels.
Rayen High School, '03, Youngstown, Principal W. L. Griswold.
North High School, '05, Columbus, Principal C. D. Everett.
Glenville High School, '06, Cleveland, Principal H. S. Cully.
Central High School, '06, Columbus, Principal W. M. Townsend.
South High School, '06, Columbus, Principal C. S. Barrett.

### MICHIGAN.

University of Michigan, c. m., Ann Arbor, President Jas. B. Angell.
Albion College, c. m., Albion, President Samuel Dickie.
Central High School, c. m., Grand Rapids, Principal A. J. Volland.
Michigan Military Academy, c. m., Orchard Lake, Principal L. C. Hull.
High School, '95, Kalamazoo, Superintendent S. O. Hartwell.
East Side High School, '95, Saginaw, Superintendent E. C. Warriner.
Detroit University School, '00, Detroit, Principal Frederick L. Bliss.
Olivet College, '06, Olivet, President E. G. Lancaster.

Michigan Seminary, '06, Kalamazoo, President Gray.
High School, '06, Charlotte, Superintendent M. R. Parmelee.

## INDIANA

Indiana University, c. m., Bloomington, President W. L. Bryan.
Wabash College, c. m., Crawfordsville, President (——)
High School, c. m., LaPorte, Superintendent J. W. Knight.
High School, '96, Fort Wayne, Principal C. F. Lane.
High School, '01, Lafayette, Superintendent E. Ayers.
Howe School, '04, Lima, Rector T. H. McKenzie.
Shortridge High School, c. m., Indianapolis, Principal G. W. Benton.
University of Notre Dame, '06, President John Cavanaugh.

## ILLINOIS

University of Illinois, c. m., Urbana, President E. J. James.
University of Chicago, c. m., Chicago, President H. P. Judson.
Northwestern University, c. m., Evanston, President A. W. Harris.
Lake Forest College, c. m., Lake Forest, President (——)
Knox College, '96, Galesburg, President Thomas McClelland.
High School, c. m., Evanston, Principal W. F. Beardsley.
Evanston Academy of Nothwestern University, c. m., Principal A. H. Wilde.
Morgan Park Academy, c. m., Morgan Park, Dean W. J. Chase.
Manual Training School, c. m., Chicago, Director H. H. Belfield.
Harvard School, c. m., Chicago, Principal John J. Schobinger.
Lake Forest School, Lake Forest, Head Master J. C. Sloan.
West Division High School, '96, Chicago, Principal C. M. Clayberg.
Hyde Park High School, '95, Chicago, Principal C. W. French.
Lake View High School, '96, Chicago, Principal B. F. Buck.
Englewood High School, '96, Chicago, Principal J. E. Armstrong.
Ottawa Tp. High School, '96, Ottawa, Principal J. O. Leslie.
Lyons Tp. High School, '96, LaGrange, Principal S. R. Cole.
Lewis Institute, '95, Chicago, Director G. N. Carman.
Streator Tp. High School, '97, Streator, Principal Ralph R. Upton.
Bradley Polytechnic Institute, '97, Peoria, Director T. C. Burgess.
High School, '98, Elgin, Principal W. S. Gable.
Lake High School, '99, Chicago, Principal Edward F. Stearns.
Marshall High School, '99, Chicago, Principal Louis J. Block.
West Aurora High School, Aurora, Principal C. P. Briggs.
Rock Island High School, Rock Island, Principal H. E. Brown.
New Trier High School, Principal F. L. Sims.
Kewanee High School, '04, Kewanee, Principal J. B. Cleveland.
LaSalle-Peru Tp. High School, '05, Principal T. J. McCormack.
East Side High School, '05, Aurora, Principal C. L. Phelps.
Township High School, '05, Joliet, Principal J. Stanley Brown.

J. Sterling Morton High School, '05, Clyde, Principal H. O. Church.
Township High School, '06, Sterling, Principal E. T. Austin.
Rockford College, '06, Rockford, President Julia Gulliver.
High School of the University of Chicago, '06, Principal W. B. Owen.

WISCONSIN

University of Wisconsin, c. m., Madison, President Charles R. Van Hise.
Beloit College, c. m., Beloit, President Edward D. Eaton.
Ripon College, '04, President Richard C. Hughes.
Milwaukee-Downer College, '97, Milwaukee, President Ellen C. Sabin.
Milwaukee Academy, '97, Milwaukee, Principal J. H. Pratt.
Racine High School, '05, Racine, Principal E. W. Blackhurst.
West Division High School, '04, Milwaukee, Principal C. E. McLenegan.
North Division High School, '04, Milwaukee, Principal R. E. Krug.
Lawrence University, '05, Appleton, President Samuel Plantz.
South Division High School, '06, Milwaukee, Principal E. Rissman.
Wayland Academy, '06, Beaver Dam, Principal E. P. Brown.
East Division High School, '07, Principal George A. Chamberlain.

MINNESOTA

Humboldt High School, St. Paul, Principal H. S. Baker.
Central High School, '04, St. Paul, Principal E. V. Robinson.
Cleveland High School, St. Paul, Principal S. A. Farnsworth.
Carlton College, '06, Northfield, President W. H. Sallmon.

IOWA

State University of Iowa, c. m., Iowa City, President Geo. E. Mac Lean.
Cornell College, c. m., Mt. Vernon, President Wm. F. King.
State Normal School, c. m., Cedar Falls, President D. S. Wright.
Iowa College, '95, Grinnell, President J. H. T. Main.
Drake University, '06, Des Moines, President H. M. Ball.
High School, '06, Council Bluffs, Principal S. L. Thomas.
High School, '06, Dubuque, Principal F. L. Smart.
West High School, '06, Des Moines, Principal W. A. Crusinberry.
Simpson College, '06, Indianola, President Charles E. Shelton.

MISSOURI.

University of Missouri, c. m., Columbia, President Richard H. Jesse.
Washington University, c. m., St. Louis, Chancellor Winfield S. Chaplin.
Drury College, '98, Springfield, President Homer T. Fuller.
Missouri Valley College, '98, Marshall, President Wm. H. Black.
High School, '96, St. Louis, Principal W. J. S. Bryan.

Westminster College, '00, Fulton, President David R. Kerr.
Mexico High School, Mexico, Superintendent D. A. McMillan.
Manual Training High School, '00, Kansas City.
Mary Institute, '00, St. Louis, Principal E. H. Sears.
Kirkwood High School, '00, Kirkwood, Superintendent R.G. Kinkead.
Park College, '02, Parkville, President Lowell M. McAfee.
Academy of Drury College, '04, Springfield, Principal C. P. Howland.
Wm. McKinley High School St. Louis, '05, Principal G. B. Morrison.

NEBRASKA.

University of Nebraska, '96, Lincoln, President E. Benj. Andrews.

KANSAS.

University of Kansas, '96, Lawrence, Chancellor Frank Strong.
Washburn College, '06, Topeka, President Norman Plass.

COLORADO.

University of Colorado, '96, Boulder, President Jas. H. Baker.
Colorado College, '96, Colorado Springs, President W. F. Slocum.
High School No. 1, '96, Denver, President Wm. H. Smiley.
The Miss Wolcott School, '06, Denver.

OKLAHOMA

University of Oklahoma, '01, Norman, President David R. Boyd.

SOUTH DAKOTA.

High School, Yankton, Principal R. C. Shellenbarger.
High School, Aberdeen, '07, Principal W. L. Cochrane, Aberdeen.

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## INDIVIDUAL MEMBERS

OHIO

Charles S. Howe, '02, President of Case School of Applied Science, Cleveland.
Jos. V. Denney, '03, Dean of the College of Arts, Philosophy and Science, Ohio State University, Columbus.
W. W. Boyd, '03, High School Visitor, Ohio State University, Columbus.
D. R. Major, '04, Professor in Ohio State University, Columbus.
G. M. Jones, '05, Secretary of Oberlin College, Oberlin.
F. C. Hicks, '06, Professor in the University of Cincinnati, Cincinnati.
F. W. Ballou, High School Inspector, University of Cincinnati, Cincinnati.

## MICHIGAN

Fred N. Scott, '98, Professor in the University of Michigan, Ann Arbor.
L. H. Jones, '95, President of the State Normal School, Ypsilanti.
A. S. Whitney, '03, High School Inspector, University of Michigan, Ann Arbor.
W. W. Beman, '95, University of Michigan, Ann Arbor.
Wm. A. Greeson, '97, Superintendent of Schools, Grand Rapids.

## INDIANA

Clarence A. Waldo, '95, Professor in Purdue University, Lafayette.
Carl Leo Mees, '96, President of Rose Polytechnic, Terre Haute.
W. W. Parsons, '99, President of the State Normal School, Terre Haute.
T. F. Moran, '02, Professor in Purdue University, Lafayette.
E. O. Holland, '06, High School Inspector, Indiana University, Bloomington.

## ILLINOIS

S. A. Forbes, '95, Professor, University of Illinois, Champaign.
A. V. E. Young, '95, Professor in Northwestern University, Evanston.
Thomas C. Chamberlin, '95, Professor in the University of Chicago, Chicago.
Henry P. Judson, '85, Professor in the University of Chicago, Chicago.
Marion Talbot, '97, Dean of Women, University of Chicago, Chicago.
F. W. Gunsaulus, '96, President of Armour Institute, Chicago.
Thomas F. Holgate, '99, Professor in Northwestern University, Evanston.
J. A. James, '99, Professor in Northwestern University, Evanston.
A. F. Nightingale, c. m., County Superintendent, 1997 Sheridan Road, Chicago.
R. E. Hieronymus, '03, President of Eureka College, Eureka.
H. A. Hollister, '03, High School Inspector, University of Illinois, Champaign.
E. G. Cooley, '04, Superintendent of Schools, Chicago.
H. F. Fisk, '05, Professor in Northwestern University, Evanston.
Walter Libby, High School Inspector, Northwestern University, Evanston.
F. J. Miller, '06, High School Inspector, University of Chicago.
Nathaniel Butler, '06, Professor in the University of Chicago.
T. A. Clark, '06, Dean of Undergraduates, University of Illinois, Urbana.
E. J. Townsend, '07, Professor in University of Illinois, Champaign.

## WISCONSIN

Edward A. Birge, '96, Professor in the University of Wisconsin, Madison.

M. V. O'Shea, '98, Professor in the University of Wisconsin, Madison.
A. W. Tressler, '03, High School Inspector, University of Wisconsin, Madison.
H. L. Terry, '06, State High School Inspector, Madison.
W. O. Carrier, '06, President of Carroll College, Waukesha.

MINNESOTA

George B. Aiton, '97, State Inspector of High Schools, Minneapolis.

IOWA

F. C. Ensign, '06, High School Inspector, State University, Iowa City.
Charles E. Shelton, '06, President of Simpson College, Indianola.

MISSOURI

F. Louis Soldan, '00, Superintendent of Schools, St. Louis.
John R. Kirk, '98, President of the State Normal School, Kirksville.
C. M. Woodward, '99, Professor in Washington University, St. Louis
A. Ross Hill, '04, Dean of Teachers' College, University of Missouri, Columbia.
Joseph D. Elliff, '05, High School Inspector, University of Missouri, Columbia.

NEBRASKA

J. W. Crabtree, '04, University of Nebraska, Lincoln.
A. A. Reed, '07, High School Inspector, University of Nebraska, Lincoln.

KANSAS

W. H. Johnson, '06, High School Inspector, University of Kansas, Lawrence.

COLORADO

H. G. J. Coleman, High School Inspector, University of Colorado, Boulder.

SOUTH DAKOTA

M. M. Ramer, '06, State Superintendent of Public Instruction, Pierre.
C. E. Swanson, Assistant State Superintendent of Public Instruction, Pierre.

NORTH DAKOTA

Webster Merrifield, '07, President, University of North Dakota, Grand Forks.

# CONSTITUTION OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

AS AMENDED AT THE NINTH ANNUAL MEETING MARCH 26, 1904.

## ARTICLE I.

### NAME.

The name of this Association shall be the North Central Association of Colleges and Secondary Schools.

## ARTICLE II.

### OBJECT.

The object of the Association shall be to establish closer relations between the colleges and secondary schools of the North Central States.

## ARTICLE III.

### MEMBERSHIP.

Section 1.—The members of the Association shall consist of the following two classes: First, colleges and universities, and secondary schools. Secondly, individuals identified with educational work within the limits of the Association.

Sec. 2.—Election to membership shall require a two-thirds vote of the members present at any meeting, and shall be made only upon the nomination of the Executive Committee.

Sec. 3.—In the membership of the Association, the representation of higher and of secondary education shall be as nearly equal as possible.

Sec. 4.—An institutional member shall be represented at the meeting of the Association by its executive head, or by some one designated by him in credentials addressed to the secretary.

Sec. 5.—No college or university shall be eligible to membership

whose requirements for admission represent less than fifteen units of secondary work as defined by the Commission on Accredited Schools.

Sec. 6. No college or university shall be eligible to membership which confers the degree of Doctor of Philosophy or Doctor of Science except after a period of three years of graduate study, not less than two of which shall be years of resident study, one of which shall be at the institution conferring the degree.

Sec. 7.—No secondary school shall be eligible to membership which does not provide fifteen units of secondary work as defined by the Commission on Accredited Schools.

## ARTICLE IV.

## POWERS.

All the decisions of the Association bearing upon the policy and management of higher and secondary institutions are understood to be advisory in their character.

## ARTICLE V.

## OFFICERS AND COMMITTEES.

Second 1.—The officers of the Association shall be a President, two Vice-Presidents from each state represented in the Association, a Secretary, a Treasurer, and an Executive Committee consisting of the President, the Secretary, the Treasurer, and four other members elected by the Association.

Sec. 2.—The officers shall be chosen at the annual meeting for the term of one year, or until their successors are elected. The election shall be by ballot.

Sec. 3.—The Executive Committee shall have power to appoint committees for conference with other bodies, whenever in their judgment it may seem expedient.

Sec. 4.—In case an officer holding office as representative of an institutional member severs his connection with the institution represented, he shall at his discretion hold his office until the close of the next regular meeting of the Association.

Sec. 5.—The Executive Committee shall have authority to fill a vacancy in any office, the officer elected by the committee to hold office until the close of the next annual meeting.

## ARTICLE VI.

## DUTIES OF OFFICERS.

Section 1.—The President, or in his absence one of the Vice-Presidents selected by the Executive Committee, shall preside at the

# CONSTITUTION OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

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## ARTICLE VI.

## DUTIES OF OFFICERS.

Section 1.—The President, or in his absence one of the Vice-Presidents selected by the Executive Committee, shall preside at the

meetings of the Association, and shall sign all orders upon the Treasurer.

Sec. 2.—The Secretary shall keep a record of the proceedings of the Association and attend to all necessary correspondence and printing.

Sec. 3.—The Treasurer shall collect and hold all moneys of the Association, and pay out the same upon the written order of the President.

Sec. 4.—The Executive Committee shall make all nominations for membership in the Association, fix the time of all meetings not otherwise provided for, prepare programmes, and act for the Association when it is not in session. All the acts of the executive Committee shall be subject to the approval of the Association.

## ARTICLE VII.

## MEETINGS.

There shall be an annual meeting of the Association and such special meetings as the Association may appoint.

## ARTICLE VIII.

## MEMBERSHIP FEE.

To meet expenses, an annual fee of $10 shall be paid by each university, $5 by each college, and $3 each by all other members, and each member shall have one vote.

## ARTICLE IX.

## QUORUM.

One-fourth of the members of the Association shall constitute a quorum.

## ARTICLE X.

## AMENDMENTS.

This constitution may be amended by a three-fourths vote at any regular meeting, provided that a printed notice of the proposed amendment be sent to each member two weeks before said meeting.

# REGISTRATION

Armstrong, J. E., Principal, Englewood High, Chicago, Illinois.
Bailey, Charles H., Professor, Iowa State Normal School, Cedar Falls, Iowa.
Ballou, Frank W., Director of School of Affiliation, University of Cincinnati, Cincinnati, Ohio.
Bardwell, C. M., Principal East Side High, Aurora, Illinois.
Beeler, L. H., Principal, Stillwater, Minnesota.
Belfield, H. H., Principal, The University High, Chicago, Illinois.
Bell, Hill M., President, Drake University, Des Moines, Iowa.
Beman, Wooster W., Professor, University, Ann Arbor, Michigan.
Bennett, Charles A., Professor, Bradley Polytechnic Institute, Peoria, Illinois.
Benton, George W., Principal, Shortridge High, Indianapolis, Indiana.
Benton, Guy Rolled, President, Miami University, Oxford, Ohio.
Bliss, Frederick L., University School, Detroit, Michigan.
Boyd, W. W., Inspector, Ohio State University, Columbus, Ohio.
Briggs, C. P., Principal, West Aurora High, Aurora, Illinois.
Brown, H. E., Principal, Rock Island, Illinois.
Brumbaugh, E. V., Principal, Marshalltown, Iowa.
Bryan, W. J. S., Principal, Central High, St. Louis, Missouri.
Bryan, Mrs. W. J. S., St. Louis, Missouri.
Buswell, Clara L., Principal, Polo, Illinois.
Butler, Nathaniel, Professor, University of Chicago, Chicago, Illinois.
Cable, J. E., Principal, Thornton Township High, Harvey, Illinois.
Caldwell, Otis M., Professor, State Normal School, Charleston, Illinois.
Carman, G. N., Director, Lewis Institute, Chicago, Illinois.
Cary, C. P., State Superintendent of Schools, Madison, Wisconsin.
Chase, Wayland J., Dean, Morgan Park Academy, Morgan Park, Illinois.
Clark, Thomas Arkle, Dean, University of Illinois, Urbana, Illinois.
Cochrane, W. L., Superintendent, Aberdeen, South Dakota.
Collie, G. L., Dean, Beloit College, Beloit, Wisconsin.
Comstock, Clarence E., Professor, Bradley Poyltechnic Institute, Peoria, Illinois.
Cooley, E. G., Superintendent of Schools, Chicago, Illinois.
Cully, H. H., Principal, Glenville High, Cleveland, Ohio.

Denney, J. V., Dean, Ohio State University, Columbus, Ohio.
Dexter, Edwin C., Professor, University of Illinois, Urbana, Illinois.
Ehrman, S. W., Principal, Decatur, Illinois.
Elliff, J. B., Inspector, Columbia, Missouri.
Elson, W. H., Superintendent, Cleveland, Ohio.
Ensign, Forrest C., Professor and Inspector, Iowa State University, Iowa City, Iowa.
Evans, W. A., Chicago, Illinois.
Everett, Charles D., Principal, North High, Columbus, Ohio.
Fos, Elizabeth H., North High, Minneapolis, Minnesota.
Fox, Fred Gates, Clyde Township High, Chicago, Illinois.
Fox, Miss Jennie L., Lincoln High, Lincoln, Nebraska.
Freer, H. H., Dean, Cornell College, Mt. Vernon, Iowa.
Garrett, W. H., Professor, Baker University, Baldwin, Kansas.
Giles, F. M., Principal, DeKalb, Illinois.
Griffith, H. E., Professor, Knox College, Galesburg, Illinois.
Grover, Olive Lothrop, New Trier Township High, Kenilworth, Illinois.
Haddock, Frank D., Superintendent, Champaign, Illinois.
Hall, Arthur G., Professor, Miami University, Oxford, Ohio.
Halsey, John J., Professor, Lake Forest College, Lake Forest, Illinois.
Hamsher, Frank, Principal, Smith Academy, St Louis, Missouri.
Harker, Joseph R., President, Illinois Woman's College, Jacksonville, Illinois.
Harris, Abram Winegardner, President, Northwestern University, Evanston, Illinois.
Harris, Mrs. Edward L., Cleveland, Ohio.
Harris, Edward L., Principal, Central High, Cleveland, Ohio
Hill, A. Ross, Dean, University of Missouri, Columbia, Missouri.
Holgate, Thomas F., Dean Northwestern University, Evanston, Illinois.
Holland, E. O., Professor, Indiana University, Bloomington, Indiana.
Hollister, H. A., Inspector, University of Illinois, Champaign, Illinois.
Hubbard, F. G., Professor, University of Wisconsin, Madison, Wisconsin.
Hughes, Richard C., President, Ripon College, Ripon, Wisconsin.
Hundley, H. Rhodes, Dean, Doane Academy, Granville, Ohio.
Hunt, Emory W., President, Denison University, Granville, Ohio.
James, Edmund J., President, University of Illinois, Urbana, Illinois.
James, J. A., Professor, Northwestern University, Evanston, Illinois.
Johnson, Franklin W., Principal, Morgan Park Academy, Morgan Park, Illinois.
Johnson, W. H., Inspector, University, Lawrence, Kansas.
Jones, Florence N., Instructor, University of Illinois, Urbana, Illinois
Jones, George M., Secretary, Oberlin College, Oberlin, Ohio.
Judson, Harry Pratt, University of Chicago, Chicago, Illinois.

Michigan Seminary, '06, Kalamazoo, President Gray.
High School, '06, Charlotte, Superintendent M. R. Parmelee.

## INDIANA

Indiana University, c. m., Bloomington, President W. L. Bryan.
Wabash College, c. m., Crawfordsville, President (——)
High School, c. m., LaPorte, Superintendent J. W. Knight.
High School, '96, Fort Wayne, Principal C. F. Lane.
High School, '01, Lafayette, Superintendent E. Ayers.
Howe School, '04, Lima, Rector T. H. McKenzie.
Shortridge High School, c. m., Indianapolis, Principal G. W. Benton.
University of Notre Dame, '06, President John Cavanaugh.

## ILLINOIS

University of Illinois, c. m., Urbana, President E. J. James.
University of Chicago, c. m., Chicago, President H. P. Judson.
Northwestern University, c. m., Evanston, President A. W. Harris.
Lake Forest College, c. m., Lake Forest, President (——)
Knox College, '96, Galesburg, President Thomas McClelland.
High School, c. m., Evanston, Principal W. F. Beardsley.
Evanston Academy of Nothwestern University, c. m., Principal A. H. Wilde.
Morgan Park Academy, c. m., Morgan Park, Dean W. J. Chase.
Manual Training School, c. m., Chicago, Director H. H. Belfield.
Harvard School, c. m., Chicago, Principal John J. Schobinger.
Lake Forest School, Lake Forest, Head Master J. C. Sloan.
West Division High School, '96, Chicago, Principal C. M. Clayberg.
Hyde Park High School, '95, Chicago, Principal C. W. French.
Lake View High School, '96, Chicago, Principal B. F. Buck.
Englewood High School, '96, Chicago, Principal J. E. Armstrong.
Ottawa Tp. High School, '96, Ottawa, Principal J. O. Leslie.
Lyons Tp. High School, '96, LaGrange, Principal S. R. Cole.
Lewis Institute, '95, Chicago, Director G. N. Carman.
Streator Tp. High School, '97, Streator, Principal Ralph R. Upton.
Bradley Polytechnic Institute, '97, Peoria, Director T. C. Burgess.
High School, '98, Elgin, Principal W. S. Gable.
Lake High School, '99, Chicago, Principal Edward F. Stearns.
Marshall High School, '99, Chicago, Principal Louis J. Block.
West Aurora High School, Aurora, Principal C. P. Briggs.
Rock Island High School, Rock Island, Principal H. E. Brown.
New Trier High School, Principal F. L. Sims.
Kewanee High School, '04, Kewanee, Principal J. B. Cleveland.
LaSalle–Peru Tp. High School, '05, Principal T. J. McCormack.
East Side High School, '05, Aurora, Principal C. L. Phelps.
Township High School, '05, Joliet, Principal J. Stanley Brown.

J. Sterling Morton High School, '05, Clyde, Principal H. O. Church.
Township High School, '06, Sterling, Principal E. T. Austin.
Rockford College, '06, Rockford, President Julia Gulliver.
High School of the University of Chicago, '06, Principal W. B. Owen.

WISCONSIN

University of Wisconsin, c. m., Madison, President Charles R. Van Hise.
Beloit College, c. m., Beloit, President Edward D. Eaton.
Ripon College, '04, President Richard C. Hughes.
Milwaukee-Downer College, '97, Milwaukee, President Ellen C. Sabin.
Milwaukee Academy, '97, Milwaukee, Principal J. H. Pratt.
Racine High School, '05, Racine, Principal E. W. Blackhurst.
West Division High School, '04, Milwaukee, Principal C. E. McLenegan.
North Division High School, '04, Milwaukee, Principal R. E. Krug.
Lawrence University, '05, Appleton, President Samuel Plantz.
South Division High School, '06, Milwaukee, Principal E. Rissman.
Wayland Academy, '06, Beaver Dam, Principal E. P. Brown.
East Division High School, '07, Principal George A. Chamberlain.

MINNESOTA

Humboldt High School, St. Paul, Principal H. S. Baker.
Central High School, '04, St. Paul, Principal E. V. Robinson.
Cleveland High School, St. Paul, Principal S. A. Farnsworth.
Carlton College, '06, Northfield, President W. H. Sallmon.

IOWA

State University of Iowa, c. m., Iowa City, President Geo. E. Mac Lean.
Cornell College, c. m., Mt. Vernon, President Wm. F. King.
State Normal School, c. m., Cedar Falls, President D. S. Wright.
Iowa College, '95, Grinnell, President J. H. T. Main.
Drake University, '06, Des Moines, President H. M. Ball.
High School, '06, Council Bluffs, Principal S. L. Thomas.
High School, '06, Dubuque, Principal F. L. Smart.
West High School, '06, Des Moines, Principal W. A. Crusinberry.
Simpson College, '06, Indianola, President Charles E. Shelton.

MISSOURI.

University of Missouri, c. m., Columbia, President Richard H. Jesse.
Washington University, c. m., St. Louis, Chancellor Winfield S. Chaplin.
Drury College, '98, Springfield, President Homer T. Fuller.
Missouri Valley College, '98, Marshall, President Wm. H. Black.
High School, '96, St. Louis, Principal W. J. S. Bryan.

Westminster College, '00, Fulton, President David R. Kerr.
Mexico High School, Mexico, Superintendent D. A. McMillan.
Manual Training High School, '00, Kansas City.
Mary Institute, '00, St. Louis, Principal E. H. Sears.
Kirkwood High School, '00, Kirkwood, Superintendent R.G. Kinkead.
Park College, '02, Parkville, President Lowell M. McAfee.
Academy of Drury College, '04, Springfield, Principal C. P. Howland.
Wm. McKinley High School St. Louis, '05, Principal G. B. Morrison.

NEBRASKA.

University of Nebraska, '96, Lincoln, President E. Benj. Andrews.

KANSAS.

University of Kansas, '96, Lawrence, Chancellor Frank Strong.
Washburn College, '06, Topeka, President Norman Plass.

COLORADO.

University of Colorado, '96, Boulder, President Jas. H. Baker.
Colorado College, '96, Colorado Springs, President W. F. Slocum.
High School No. 1, '96, Denver, President Wm. H. Smiley.
The Miss Wolcott School, '06, Denver.

OKLAHOMA

University of Oklahoma, '01, Norman, President David R. Boyd.

SOUTH DAKOTA.

High School, Yankton, Principal R. C. Shellenbarger.
High School, Aberdeen, '07, Principal W. L. Cochrane, Aberdeen.

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## INDIVIDUAL MEMBERS

OHIO

Charles S. Howe, '02, President of Case School of Applied Science, Cleveland.
Jos. V. Denney, '03, Dean of the College of Arts, Philosophy and Science, Ohio State University, Columbus.
W. W. Boyd, '03, High School Visitor, Ohio State University, Columbus.
D. R. Major, '04, Professor in Ohio State University, Columbus.
G. M. Jones, '05, Secretary of Oberlin College, Oberlin.
F. C. Hicks, '06, Professor in the University of Cincinnati, Cincinnati.
F. W. Ballou, High School Inspector, University of Cincinnati, Cincinnati.

## MICHIGAN

Fred N. Scott, '98, Professor in the University of Michigan, Ann Arbor.
L. H. Jones, '95, President of the State Normal School, Ypsilanti.
A. S. Whitney, '03, High School Inspector, University of Michigan, Ann Arbor.
W. W. Beman, '95, University of Michigan, Ann Arbor.
Wm. A. Greeson, '97, Superintendent of Schools, Grand Rapids.

## INDIANA

Clarence A. Waldo, '95, Professor in Purdue University, Lafayette.
Carl Leo Mees, '96, President of Rose Polytechnic, Terre Haute.
W. W. Parsons, '99, President of the State Normal School, Terre Haute.
T. F. Moran, '02, Professor in Purdue University, Lafayette.
E. O. Holland, '06, High School Inspector, Indiana University, Bloomington.

## ILLINOIS

S. A. Forbes, '95, Professor, University of Illinois, Champaign.
A. V. E. Young, '95, Professor in Northwestern University, Evanston.
Thomas C. Chamberlin, '95, Professor in the University of Chicago, Chicago.
Henry P. Judson, '85, Professor in the University of Chicago, Chicago.
Marion Talbot, '97, Dean of Women, University of Chicago, Chicago.
F. W. Gunsaulus, '96, President of Armour Institute, Chicago.
Thomas F. Holgate, '99, Professor in Northwestern University, Evanston.
J. A. James, '99, Professor in Northwestern University, Evanston.
A. F. Nightingale, c. m., County Superintendent, 1997 Sheridan Road, Chicago.
R. E. Hieronymus, '03, President of Eureka College, Eureka.
H. A. Hollister, '03, High School Inspector, University of Illinois, Champaign.
E. G. Cooley, '04, Superintendent of Schools, Chicago.
H. F. Fisk, '05, Professor in Northwestern University, Evanston.
Walter Libby, High School Inspector, Northwestern University, Evanston.
F. J. Miller, '06, High School Inspector, University of Chicago.
Nathaniel Butler, '06, Professor in the University of Chicago.
T. A. Clark, '06, Dean of Undergraduates, University of Illinois, Urbana.
E. J. Townsend, '07, Professor in University of Illinois, Champaign.

## WISCONSIN

Edward A. Birge, '96, Professor in the University of Wisconsin, Madison.

M. V. O'Shea, '98, Professor in the University of Wisconsin, Madison.
A. W. Tressler, '03, High School Inspector, University of Wisconsin, Madison.
H. L. Terry, '06, State High School Inspector, Madison.
W. O. Carrier, '06, President of Carroll College, Waukesha.

MINNESOTA

George B. Aiton, '97, State Inspector of High Schools, Minneapolis.

IOWA

F. C. Ensign,'06, High School Inspector, State University, Iowa City.
Charles E. Shelton, '06, President of Simpson College, Indianola.

MISSOURI

F. Louis Soldan, '00, Superintendent of Schools, St. Louis.
John R. Kirk, '98, President of the State Normal School, Kirksville.
C. M. Woodward, '99, Professor in Washington University, St. Louis
A. Ross Hill, '04, Dean of Teachers' College, University of Missouri, Columbia.
Joseph D. Elliff, '05, High School Inspector, University of Missouri, Columbia.

NEBRASKA

J. W. Crabtree, '04, University of Nebraska, Lincoln.
A. A. Reed, '07, High School Inspector, University of Nebraska, Lincoln.

KANSAS

W. H. Johnson, '06, High School Inspector, University of Kansas, Lawrence.

COLORADO

H. G. J. Coleman, High School Inspector, University of Colorado, Boulder.

SOUTH DAKOTA

M. M. Ramer, '06, State Superintendent of Public Instruction, Pierre.
C. E. Swanson, Assistant State Superintendent of Public Instruction, Pierre.

NORTH DAKOTA

Webster Merrifield, '07, President, University of North Dakota, Grand Forks.

# CONSTITUTION OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

AS AMENDED AT THE NINTH ANNUAL MEETING MARCH 26, 1904.

## ARTICLE I.

### NAME.

The name of this Association shall be the North Central Association of Colleges and Secondary Schools.

## ARTICLE II.

### OBJECT.

The object of the Association shall be to establish closer relations between the colleges and secondary schools of the North Central States.

## ARTICLE III.

### MEMBERSHIP.

Section 1.—The members of the Association shall consist of the following two classes: First, colleges and universities, and secondary schools. Secondly, individuals identified with educational work within the limits of the Association.

Sec. 2.—Election to membership shall require a two-thirds vote of the members present at any meeting, and shall be made only upon the nomination of the Executive Committee.

Sec. 3.—In the membership of the Association, the representation of higher and of secondary education shall be as nearly equal as possible.

Sec. 4.—An institutional member shall be represented at the meeting of the Association by its executive head, or by some one designated by him in credentials addressed to the secretary.

Sec. 5.—No college or university shall be eligible to membership

whose requirements for admission represent less than fifteen units of secondary work as defined by the Commission on Accredited Schools.

Sec. 6. No college or university shall be eligible to membership which confers the degree of Doctor of Philosophy or Doctor of Science except after a period of three years of graduate study, not less than two of which shall be years of resident study, one of which shall be at the institution conferring the degree.

Sec. 7.—No secondary school shall be eligible to membership which does not provide fifteen units of secondary work as defined by the Commission on Accredited Schools.

## ARTICLE IV.

## POWERS.

All the decisions of the Association bearing upon the policy and management of higher and secondary institutions are understood to be advisory in their character.

## ARTICLE V.

## OFFICERS AND COMMITTEES.

Second 1.—The officers of the Association shall be a President, two Vice-Presidents from each state represented in the Association, a Secretary, a Treasurer, and an Executive Committee consisting of the President, the Secretary, the Treasurer, and four other members elected by the Association.

Sec. 2.—The officers shall be chosen at the annual meeting for the term of one year, or until their successors are elected. The election shall be by ballot.

Sec. 3.—The Executive Committee shall have power to appoint committees for conference with other bodies, whenever in their judgment it may seem expedient.

Sec. 4.—In case an officer holding office as representative of an institutional member severs his connection with the institution represented, he shall at his discretion hold his office until the close of the next regular meeting of the Association.

Sec. 5.—The Executive Committee shall have authority to fill a vacancy in any office, the officer elected by the committee to hold office until the close of the next annual meeting.

## ARTICLE VI.

## DUTIES OF OFFICERS.

Section 1.—The President, or in his absence one of the Vice-Presidents selected by the Executive Committee, shall preside at the

# The North Central Association of Colleges and Secondary Schools

**Thirteenth Annual Meeting, Chicago, March 27 and 28, 1908**

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The thirteenth annual meeting of the North Central Association of Colleges and Secondary Schools was held in Chicago, Friday and Saturday, March 27 and 28, 1908.

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## FIRST SESSION FRIDAY, MARCH 27, 1908.

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The Association was called to order at 10 o'clock a. m. in the Banqueting Hall of the Auditorium Hotel by the President, Edmund Janes James of the University of Illinois, Urbana, Illinois. President James delivered the annual address as follows:

### CLASSIFICATION OF OUR HIGHER INSTITUTIONS OF LEARNING.

DR. EDMUND JANES JAMES, PRESIDENT OF THE UNIVERSITY OF ILLINOIS, URBANA, ILLINOIS.

In the last few years there has been much discussion as to the possibility of classifying our American schools, colleges and universities in accordance with some definite plan, which should enable us to improve our instruction, and if

whose requirements for admission represent less than fifteen units of secondary work as defined by the Commission on Accredited Schools.

Sec. 6. No college or university shall be eligible to membership which confers the degree of Doctor of Philosophy or Doctor of Science except after a period of three years of graduate study, not less than two of which shall be years of resident study, one of which shall be at the institution conferring the degree.

Sec. 7.—No secondary school shall be eligible to membership which does not provide fifteen units of secondary work as defined by the Commission on Accredited Schools.

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Section 1.—The President, or in his absence one of the Vice-Presidents selected by the Executive Committee, shall preside at the

meetings of the Association, and shall sign all orders upon the Treasurer.

Sec. 2.—The Secretary shall keep a record of the proceedings of the Association and attend to all necessary correspondence and printing.

Sec. 3.—The Treasurer shall collect and hold all moneys of the Association, and pay out the same upon the written order of the President.

Sec. 4.—The Executive Committee shall make all nominations for membership in the Association, fix the time of all meetings not otherwise provided for, prepare programmes, and act for the Association when it is not in session. All the acts of the executive Committee shall be subject to the approval of the Association.

## ARTICLE VII.

## MEETINGS.

There shall be an annual meeting of the Association and such special meetings as the Association may appoint.

## ARTICLE VIII.

## MEMBERSHIP FEE.

To meet expenses, an annual fee of $10 shall be paid by each university, $5 by each college, and $3 each by all other members, and each member shall have one vote.

## ARTICLE IX.

## QUORUM.

One-fourth of the members of the Association shall constitute a quorum.

## ARTICLE X.

## AMENDMENTS.

This constitution may be amended by a three-fourths vote at any regular meeting, provided that a printed notice of the proposed amendment be sent to each member two weeks before said meeting.

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with the other. No later than 1892 the contest seemed to be settled in the direction of a final and complete victory in certain directions of the old classical school. Within eight years we find the government of Prussia proceeding to the extent of recognizing not simply the non-Greek college but the non-Greek and Latin college as on a full parity with the old classical college in the matter of admission to the university, so that now Germany is in this respect more radical than England in its older universities, or France or even the United States, in the case, at any rate, of many of the leading private institutions.

It is not by any means sure that our present system of dividing up the time from the seventh year of the student's life to the twenty-second or twenty-third, is at all the ideal scheme. Many people believe, though I do not share their views, that our American college of the old-fashioned type is destined to disappear, ground to powder beneath the ever-encroaching claims of secondary education as expressed in the high school and the still more voracious claims of the university as standing for professional training in all the different lines in which a society may require such advanced work. Let us once standardize this system as it exists and we have made it with every step of standardization increasingly difficult to adapt it to our needs or to shape it according to our ever-changing conditions.

But after all, I take it, that this classification and standardization is at hand. That we shall accept its disadvantages along with its advantages and the problem before us, probably, is to increase as far as possible the advantages, diminishing, as we may be able, the disadvantages of such a scheme.

One element in this process of standardization ought not to be overlooked, and that is the effect of foreign institutions and foreign systems on our own policy. It has been

a custom for nearly a hundred years for the more progressive and enlightened of our American students to seek to complete their home education by study at foreign centers, in England, France and in Germany, and of late in Rome and Athens. Where students desire to receive some recognition from foreign institutions for work done under their auspices, one of the first questions to be raised would naturally be as to whether said students had pursued preliminary courses of study which would justify foreign institutions in conferring upon them their academic degrees. The unwillingness of English universities to depart in any degree whatever from their own stereotyped rules and principles of granting degrees, combined with the lack of opportunity for advanced study in all but a very few lines has always kept the number of American students in England down to very small limits. Something of the same condition of things has prevailed in France. In Germany the liberality of the universities combined with the unquestioned leadership of German science has attracted large numbers of American students who in the last seventy-five years, particularly in the last quarter of the last century, resorted in an ever-swelling tide to German centers. The principle adopted by the German universities has been in general to insist on the same standard for the foreign students as for their own. But as this standard itself was a very liberal one, requiring few formalities, nothing in fact except the completion of a preliminary course of study corresponding to their classical gymnasia and of late to their Latin real schools, three years of residence in a German university or residence in a university, which for this purpose would be assimilated to the German university, and the final examination and presentation for the degree,—all these things could be easily met. But as there was no standard adopted in this country by which German institutions could decide

whether a given American institution calling itself a university was really a university or merely a high school or even less than that, there were objections both on the part of the German institutions and American institutions to the liberality with which German universities administered this system. Finally the Association of American Universities sent a formal protest to German universities against their accepting the work of American students which had been done in any other than institutions of first rank. The reply to this was the action taken by the faculty of the University of Berlin, and which has since been imitated by other institutions, limiting the acceptance of credentials from American universities to those particular institutions which were enrolled as members of the Association of American Universities.

That this action is as much too narrow, as the former action of some German universities was perhaps too liberal, no one who knows the circumstances will at all deny. Under this ruling, work which no one with any knowledge of the facts would think of classing below true university work, is quietly ignored because, forsooth, it was not done in one of these particular institutions. Action similar to this was taken by the Dutch government, and somewhat similar action taken by one or two American states in regard to teacher's diplomas.

What practical questions are involved here in this discussion which some people might consider purely theoretical may be seen from the following circumstances, which I presume have been duplicated again and again. A man who had taken his master of arts degree at the University of Illinois in chemistry, presented this degree at the university of Halle as in part fulfilling the requirements of the three years' term of residence at a university for the German Ph.D. The answer of the authorities there was that

his master of arts would admit him to the university, but inasmuch as the University of Illinois was not a member of the Association of American Universities, residence at the University of Illinois could not be accepted as residence at a German university, or its equivalent.

Upon further showing as to the quality of this work the university senate asked the minister of education to make a dispensation in favor of this man, and his master of arts was accepted as the equivalent of one year's residence, which was all he had asked for in the premises.

Now the fact of it is that work for the master of arts in chemistry is offered in many American institutions not members of the Association of American Universities, which is quite the equal of chemistry work offered in any German university for the first year or two of university work, and to refuse to recognize this work on the ground that the particular institution is not a member of the Association of American Universities is certainly unsatisfactory, to use no stronger word. Such a rule cannot be justified on any ground except the simple one that the foreign institution or foreign country cannot be expected to go into the question of determining the relative standards of different institutions when the country from which the students come will not take that trouble itself. It is no reflection, therefore, to my mind, upon the German universities that they have grasped at this simple and easy, though very unfair, means of determining a difficult question. We should determine this question not only for them but for ourselves.

There is still another aspect of this whole question which ought not to be lost sight of in such a discussion as this. Many foreign students are resorting to this country for the purpose of special or advanced study, and they desire that the certificates issued by our institutions shall be such as

will be accepted in their own country to enable them to practice the professions which they expect to pursue. This is notably true of the profession of dentistry. There is no question that the best American dental schools are far superior, taken all in all, as places of training in theory and practice, to the schools of any other country as a group. There is no doubt that in some of these schools a standard of liberal and technical training is set up which is quite the equal of that required by any other country.

It is difficult, however, to make it apparent to the authorities of any other country exactly what value the certificates of these different institutions may have. As a result, some countries, like Germany, have absolutely forbidden the holders of certain American degrees to state that fact or advertise it in any way and have fined persons who have paraded the degrees they held from such American institutions.

This is a perfectly natural and proper proceeding, and until we in the United States are willing to offer some kind of guarantee which foreign countries may take in regard to these matters, we ought not to be surprised if they discriminate against studying in the United States, no matter how great and valuable may be the opportunities here offered.

This whole question of standardizing has thus the most intimate relation to many important questions connected with public administration in this and other countries, as well as with what may be called educational problems alone.

I propose in this paper to outline what seems to me to be the proper organization or standardization of our American education under existing conditions, and then to examine how far this—I will not call it ideal, but appropriate scheme of standardization and classification may be applied to our schools and colleges and universities as they actually exist,

and how far all reputable institutions of any sort may be fitted into such a scheme of classification.

It seems to me that any scheme of standardization for the present, at any rate, and probably for many years to come, ought to have a large element of elasticity. In fact, the necessity of elasticity in any scheme of classification can scarcely be questioned. The only point of difference of opinion, I presume, would be as to the desirable degree of elasticity.

Such a scheme ought, in the first place, it seems to me, to take account of and provide due recognition for, all the work of a given quality, no matter where it may be done, by whom it may be done or under what conditions. In other words, such a plan ought not to proceed to snuff out work of a university or college or high school quality, or grade, simply because it is not done in an institution which itself, on the whole, may deserve the name of university, college or high school.

In the next place, such a scheme of standardization should rest on the one hand upon a psychological basis and on the other upon a social and historic basis, i. e., upon the needs of our present community and of our community as it is likely to be in the near future. Such a scheme, moreover, should be evidently in the line of present development, clearly in harmony with the forces at work in the present evolution of our society, acting at all points to assist the elements that are at work for its uplift, discouraging, as far as may be, the elements which would tend to clog, hamper, embarrass or prevent the development of our society.

Furthermore, in the process of standardization, if we find that, after all, in the essence and in the large, our development is along the lines of development in other nations under the domination of European civilization; that on the whole our wants and needs are essentially the same as those

of England, France and Germany, then we should not, merely for the sake of having a different scheme, depart too widely, except for very good reasons, from the course of development which is evidently common to us all.

With these preliminary considerations, then, let us undertake briefly an attempt at classification and standardization of our American college and university system, utilizing as far as possible all the work which has been done up to the present, taking from any and every source any and every valuable suggestion to help us formulate in a clear and definite way the lines of educational classification.

For historic reasons, I think it will be easier to begin with the idea of the university, meaning by that the institution which in a group of professional schools prepares the youth of a country for undertaking the practice of the so-called learned professions, under which we should to-day certainly include theology, medicine, law, teaching in colleges and universities, engineering, and perhaps others as well.

I should classify institutions by whether they are doing a certain kind and quality of work, and to lay the basis for this classification we should find some definition for this work. I should define university work as follows: University work is that kind of work which is directed toward the requisite mastery of a body of knowledge which is necessary or desirable to the adequate practice of a learned profession, carried on by men of suitable age for such work, who have had a proper preliminary training to qualify them to do this work, under the leadership and supervision of men qualified by scholarship and training to give the necessary instruction, and in centers where the equipment in apparatus and libraries is sufficient to make such work profitable.

You will see that the essential elements of university

work as I conceive it, are first the character or quality of the work itself, being directed to the mastery of a sufficiently comprehensive body of knowledge to serve as the basis of a calling or profession. That this work shall be undertaken only by people of suitable age and suitable preliminary training; that it shall be done under the direction of scholars and leaders in their respective fields, assisted by all the apparatus and library material which can be made useful in the imparting of such instruction.

Now if we accept this definition I think we shall be rather surprised to find on looking into the different civilized countries of modern Europe and the United States how generally this definition has already been accepted or is gradually being accepted for university work. And we shall be, moreover, rather surprised to find what general agreement there is, after all is said and done and with all variety in detail as to what is desirable under each of these heads, namely, suitable age of the student entering upon this study, suitable preliminary training, character of instruction and material equipment.

We shall find, for example, that in Germany, the average age of the men who are admitted to such study as this, is about nineteen to twenty. The same thing is true of France, of Italy, of Austria, of Russia and of England, and generally speaking of the United States. The tendency is clearly to require as a condition of entering upon all such study in all these countries, that degree of preliminary education and training which the youth may properly acquire by the time he is twenty years of age; whether we call the school gymnasium or lycee, or public school or athenaeum or high school. The tendency in all these countries alike is very patently voicing itself in the conviction as expressed in the concrete institutions or in the theoretical formulation that the beginning of professional study of this sort

should not be delayed beyond the twentieth year. And furthermore, that we may secure by a proper development of our institutions of secondary education all the general or liberal training which is necessary to take up the study of these professions by the time a man has attained that age, and that in the interest of the professions themselves and of the adequate development of the subjects themselves the beginning of such study should not be postponed, speaking in the large, to a later date.

We shall find that the time required for the university part of professional training varies somewhat in different countries, and yet even in this there is, everything considered, an astonishing agreement. For example, the period of three years is the period required for the university part of study in preparation for admission to the bar in Germany and in France, in England and in the United States. The period of four years and five years is quite as generally accepted for the medical profession; three years for the clergy, in those countries in which there is an established church, and three years for those who are preparing for the teaching profession. Underlying the vast variety and multiplicity of details controlling admission to the learned professions in these different countries is this remarkable agreement as to the real essence of things.

If we accept this definition, then, for university work, and this outline of the period of university study, namely, that it shall begin by the twentieth year and extend over three, four or five years, according to the department, we shall see that the first part corresponds in this country, roughly speaking, to the close of the sophomore year in our standard American college. That the university work, therefore, would begin with the junior year and run through the two years of the college, and according to circumstances to the three years

of the graduate school. Now some of our institutions have undertaken to set the close of the senior year as the period of beginning university work, and have set out to insist upon graduation from the standard American college as the condition of admission to so-called university or graduate work looking toward the profession of college or university teacher, or university work looking toward the career of law or medicine or theology or engineering. Notably is this true of Harvard, of Columbia and to some extent, though in a little different form, of Johns Hopkins.

I cannot help thinking, myself, that while some temporary service may be done to American education by this step on the part of Harvard and Columbia, on the whole, it represents rather a damage than a service; that historically and pedagogically speaking it is unsound; that even if it would be accepted by our American society as the proper standard, we should thereby be doing our society a positive injury. A man may be injured just as much by keeping him too long at his books as by letting him out too early, and a scheme under which a man shall spend after his eighteenth year four years in college, then five years in the medical school and four years, or three years even, in law, and four years in engineering, represents an amount of time which the average man ought not to spend upon specifically school work as a preparation for the practice of a profession. On the contrary, I think the time indicated by the history of the other nations is in this respect far truer and far more in accordance with our own needs and wants than that which would be indicated by the policy of Harvard or Columbia.

Now that there is a certain reaching out toward this period of two years as marking the maximum time which our American community ought to require that the young man should spend in his preliminary work, is evident by the

very striking phenomenon in connection with the advancement of our standards in our American professions. The Council of the American Medical Society after long threshing out of this whole question has come around to the view that two years of the college in addition to the four years in the typical high school, all underlaid by the eight years of the elementary school, represents not only all that can be required under our American conditions, but all that ought to be required, judged by historic and psychological standards.

The young man who has been in school from the age of six years until twenty, if our system is properly organized, ought to be amply ready to take up professional work and carry it on in a professional spirit with a professional end in view. If our schools cannot prepare a man properly by that time for this sort of work, then we ought to alter our schools, change our curriculum, modify our methods of instruction so that he can be properly trained by that time, and not attempt to improve deficient elementary training by simply adding another two years of diletanté, generally scattered, oftentimes purposeless, work of the last two years in college.

I am speaking here of what our requirement ought to be for the study of the learned professions, not of the time which the exceptional man here and there might profitably spend in further study and preparation. That, it seems to me, is an entirely different proposition.

Now it will be noted that in the discussion thus far of university work, I have not spoken of or incorporated in the idea of university work the notion of advanced work at all. In fact the beginning of university work will in very many cases be elementary work at the same time, and cannot but be that, and ought to be that. Thus a student who comes up to the study of the law, say after the close of the

sophomore year in college, begins the study of the law. Now the work that he is doing, if done from the point of view indicated, with the purpose in mind and under the conditions described, is university work pure and simple, though it is also elementary work. In other words, university work is not in any sense to be considered as opposed to or set over against elementary or advanced work. The same thing is true of the work in medicine, in physiology, in anatomy, in chemistry. The same is true of theology. The same is certainly true of Hebrew, Assyriology, Egyptology, etc., etc. In other words, those subjects which are proper topics of university study but which either are not proper subjects of elementary or secondary study, must certainly be begun in the university, that is, in their particular cases university work must be of an elementary character. But it will be elementary work done by persons of suitable age and suitable training and under suitable instructors and in suitable conditions as to equipment, etc., to make it truly university work in the sense which we have described. Now owing to the fact that certain subjects have for many generations formed the backbone of the elementary instruction, Latin, Greek, mathematics, and that other subjects have been added to this same curriculum, such as natural science, modern languages, history, etc., it has come about that students who enter upon the study of these subjects in the university may very properly be supposed to have made themselves acquainted with the elements of these subjects before entering the university, and consequently university work in these subjects may begin at an advanced stage of acquirement which could not be insisted upon in the case of the legal, medical or theological studies which I have named.

As a result of this fact and this development we have come to expect in the case of university study in certain of

these subjects a more advanced stage of preparation than we should call for in other lines. Thus if the student who has had the preliminary work of a classical college desires to take up the university study of Spanish, which is not a subject included in the curriculum of the school whose course he has completed, he may perhaps fairly enough be called upon to show an acquaintance with the elements of the subject, such as could be acquired in that secondary school which does offer this particular subject.

Now as to the question whether this preliminary work which we divide up at present among the elementary school, the high school and the first two years of the college, should continue to be so divided or whether it should all be put into one school with an introductory period like the German gymnasium and the German real school, or whether it should be divided up among three years in college and three years in the high school and eight years in the elementary school; or three years in the college and four years in the high school and seven years in the elementary school; or two years in college, or one year in college and five years in the high school and eight years in the elementary school or any other particular sub-division of this work— I say this is a matter of detail, an important matter in itself but one which does not vitally concern the university or its work. All that the university need be concerned about is that this suitable preliminary training be secured by, say, the twentieth year.

You will note that I have defined university work by its quality, and its characteristics. Any institution which is doing this work is doing university work. I don't care whether you call it a university, a college, or a high school. I should reserve the name university, however, in such a classification as is here proposed for any institution which is doing university work in a sufficiently large number of

subjects, over a sufficiently large field, to be an institution of marked importance for the life of the community whose interests it is serving. I am aware that this is rather an indefinite formulation and yet I think for all practical purposes it is definite enough. For example, we should agree, if you accept my definition, that an institution which is preparing persons for the practice of the traditional learned professions and for teaching in colleges and universities in chemistry, physiology, geology, botany, zoology, history, Latin, Greek, English and other modern languages, economics, sociology, engineering, agriculture—I say an institution which was offering to young men an opportunity to do university work in such a large group of these subjects would certainly be called a university.

I am also aware that if we should insist upon applying the name university only to institutions which were doing such work as I have described we should find that we have very few universities in the United States to-day, though we have many institutions which almost reach this standard and could easily reach it in the course of a few years if we could all agree that this is desirable. And so I should class, for purposes of comparison, the universities as universities of the first class namely; universities which in all their departments were doing university work of the character thus described. Universities of the second class, institutions which are doing university work in most of the departments of instruction which they maintain. Universities of the third class, institutions which are doing less than half of the work which they support of this particular grade. And universities of the fourth class, institutions which are carrying on professional work, without reference to such requirements as are here indicated.

Keeping in mind this definition of university work, we have then to classify a large number of institutions from

this point of view, which under our general definition could not be classed as universities at all, and are as a matter of fact ordinarily called colleges. I should take, for instance, all the first class American colleges of the traditional type and standard, such as Amherst, Williams, Beloit, Knox, Oberlin, etc., etc. If these institutions chose to do in the last two years of their curriculum university work as tried and tested by our definition, and many of them could do it if they cared to, I should give to them the title of university colleges, and recognize all the work which they did which could be classed as of university grade, to be of that quality, and give to their students a standing in the universities in the professional schools corresponding to the showing which they would be able to make from this point of view. So far as they were not willing or were unable to adapt their work to this new standard and this new quality, I should continue to label them as colleges. The general literary training which they give to their own students would undoubtedly advance the latter from the standpoint of general culture, but it might not be included as a part of university work.

This plan would necessitate the organization of the university courses at the beginning of the junior year, and if the institutions were large enough and equipped sufficiently, these university courses might run side by side with the present college courses through these two years. By university courses in this sense I mean simply courses that from the very beginning are calculated to introduce the student into the mastery of the subject which he is taking up. They would call for more time, generally speaking, than the ordinary college courses. They would call for a different method oftentimes, and in any case would call for more concentrated energy on the part of the student.

Now those of you who are familiar with our educational

history will recognize that this is a development of the plan which years ago was adopted at the University of Michigan. It has always seemed to me that it was a very wise and statesmanlike scheme. I thought at the time it was born somewhat prematurely, and I have always been sorry to find my prognostication verified. But it was no farther ahead of the times than Dr. Wayland's elective system at Brown university was ahead of the times when it could be tried to the fullest extent at Harvard; and I believe the time has come when if our institutions would be bold, and seize the strategic moment and organize around this idea, we should advance within a comparatively brief time to a position where the entire world would recognize twenty-five or thirty and perhaps forty or fifty of our American institutions as universities in the full and proper sense of that term, and where we should be doing the largest possible service to the country, and where we should have set up the highest possible standards which we can attain to in our day and generation.

To sum up briefly the form which our educational system would take under this scheme.

I. The completion of the sophomore year in college or an equivalent course would be required by all our institutions wishing to be ranked as universities as a condition of admission to the Law School, Medical School, Engineering School, Dental School, and the University Schools in Languages, Mathematics, Chemistry, Physics, Zoology, Botany, History, Economics, Commerce, Business, etc., etc.

II. University work in all these subjects could be organized at the beginning of the junior year. By university work would be meant, courses planned and taught for those who desired to make them the basis of a truly special or professional career.

III. The professional course would extend for three,

four or five years from the beginning of the junior year, three years for law, for teaching in high schools, or for practical courses, like chemistry, three or four years for engineering, four or five years for medicine, etc., etc.

IV. The existing degrees could be retained for the present: Doctor for Medicine, Bachelor for Law; Bachelor for Engineering; Master for Teaching, etc., etc., with the possibility that the Doctor's degree would be ultimately given for all the university courses.

V. General Courses in Arts and Science could be given, for the present, during the Junior and Senior years by the taking of which students could, as at present, take the bachelor's degree in the Arts and Science at the end of the fourth year after entering college or these degrees could be given for the completion of a sufficient number of the university courses to represent two years' work.

VI. Our present independent colleges could continue their present work, their students largely increased during the first two years, at any rate by the fact that no student would be admitted to university work who had not completed such a course; and in all probability during the last two years also because of the fact that an increasing number of students would be inclined to finish the course before leaving the college.

VII. An increasing number of independent colleges could be enabled by the increase of their income to offer university courses in the last two years of the college, thus acquiring the rank of university colleges and serving the needs of their constituency for a year or two at any rate.

Among the alvantages of such a plan would be the following:

1. It presents a perfectly feasible and practical plan of passing gradually over, out of our present chaos, assign-

ing in the meantime to every institution a definite function in this great system of education.

2. It is a plan which involves the minimum of change in our present scheme of organization. It calls for no violent transitions. It leaves things largely as they are, but directs at every point the dynamic forces in operation to a higher level. It upsets no system of degrees but in its organization will doubtless work toward a desirable uniformity.

3. It sets as the desirable degree of preliminary education what is perfectly attainable with our present system of educational institutions. It places admission to the law school, medical school and other university schools upon a psychological and historic basis. It admits the student to the study of the law when by previous training and lapse of years he has attained to the point when he can pursue such study with profit; and it agrees in essence with the requirements fixed for similar work in the great civilized nations.

4. Such a plan if accepted by the educational authorities as a wise one, will command in a short time the assent of the professions and then of the people. It is in this sense also feasible, i. e., a plan which within a reasonable time—say a generation—can be fully carried through.

5. It represents a distinct advance over present standards—as great an advance as our day and generation will accept—and I believe as great an advance as any day and generation will or ought to accept for purely university work, as universities are now organized.

6. It will in a short time raise the standard of preliminary and professional work so that we shall have no lawyers or physicians or teachers who shall not be liberally educated as well as professionally trained men.

7. It would not be long until our Boards of Education

would insist that every high school teacher should have the special professional training for his vocation involved in a university study of the subjects he wished to teach, and our whole system of secondary education would be raised to a new level.

8. It represents a plan of progress in which the great majority of our higher institutions can join without feeling that their interests are being sacrificed to build up the prosperity of a score of great and overgrown complexes of professional schools.

Before closing I will reply to one or two questions which may be asked in regard to the relation of such a plan as this to existing forms or organization.

What will become of the Graduate School under such a scheme?

It may remain what it is in fact, though I should expect to see some change in form.

The American Graduate School is a peculiar institution, of very recent growth. It represents the German Faculty of Philosophy at certain points; and the Honor Schools of Oxford and Cambridge in others.

The formal requirements for the Doctor's degree in our American Graduate Schools are considerably higher than those in the German University, or for the newly created doctorate in France and England.

In fact, the requirements are such that few people think of complying with them unless they are looking forward to teaching in colleges and universities.

Considering the importance of a high standard of training for such advanced positions, our requirements are perhaps not too high; and if we leave the doctor's degree where it is, viz: five years from the beginning of the junior year, or the beginning of university study, as we have defined it,

the present plan would call for no change either in form or organization.

On the other hand, it might be desirable to make the Master of Arts a more purely university degree than it is at present. It could be easily adjusted, however, by letting it remain as now, three years in time from the beginning of the junior year, but require university work as defined above, instead of college work for the three years preceding its acquisition. It might then become the usual degree for men expecting to teach in high schools, and thus represent the present German Doctorate, while our present doctorate would indicate what the German doctor is supposed to have attained to by the time he locates himself as Privat-docent in a German university.

Such a scheme of standardizing would enable us to classify every institution we now have which is doing work worthy of recognition.

Accepting the system already worked out in general for classification of high schools and extending it to cover the first two years in college, we might work out in a similar way a classification of colleges and institutions claiming to be universities, by which every student who had actually done the university work could receive credit for it; no matter where he had done it. Such a system, besides securing substantially equal recognition for substantially equivalent work, and thus serving the ends of justice, would be an ever-present force in raising and maintaining proper standards; and would render easy that mutual recognition of academic degrees among modern civilized nations which would be a no mean agency in promoting mutual respect in the world of education and science.

As to the machinery by which such a system should be put in force, there may well be wide difference of opinion. My own opinion would be that the National Association of

State Universities might well undertake the task; for if its members could come to some common agreement, considering the wide divergence in character of institutions represented in that organization, we might well hope for some plan to be submitted which would bear important fruit within the lifetime even of some of us older members, provided we live out our three-score years and twenty or thirty!

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The report of the Treasurer, Principal J. E. Armstrong, Englewood High School, Chicago, was presented as follows:

REPORT OF THE TREASURER OF THE ASSOCIATION FOR THE YEAR ENDING MARCH 27, 1908.

RECEIPTS.

| | |
|---|---|
| Cash on hand at date of last report | $246.56 |
| Sale of reports and blanks | 10.25 |
| From one hundred and ten $3 memberships | 330.00 |
| From twenty $10 memberships | 200.00 |
| From twenty-two $5 memberships | 110.00 |
| Total | $896.81 |

DISBURSEMENTS.

| | | |
|---|---|---|
| Printing | $376.85 | |
| Expenses of Committees | 172.15 | |
| Postage | 19.17 | |
| Clerk and Stenographer | 27.50 | |
| Express and notary fees | 1.94 | |
| Total | $597.61 | |
| Cash on hand | 299.20 | $896.81 |

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The report of the Medical Committee was presented by the chairman of the committee, Dean E. A. Birge, of the University of Wisconsin, as follows:

## REPORT OF MEDICAL COMMITTEE.

1. Medical schools now require for admission at least a diploma from a four-year high school and for graduation attendance on a medical school for four years of at least seven months each. State boards of medical examiners make the same minimum requirements.

2. Since more than 60% of the medical schools still admit students on the completion of the high school course, their first year's work is necessarily adjusted to the needs and capacities of such students and includes subjects more fully and better taught in colleges.

In New York medical schools in 1907, the first year's work included 221 hours of general physics and chemistry (24% of the year's work), 214 hours (23%) of histology and embryology, 173 hours (nearly 20%) of physiology; the remainder being given to anatomy (practically all human anatomy) and materia medica. About 25% of the work of the second year was given to physiological chemistry and toxicology and to bacteriology. All of these subjects are or may be taught in colleges.

3. For a good many years medical schools gave credit for work done in literary colleges and universities (hereafter referred to in this report as "colleges") which was parallel to their required studies. This credit was given either to certain subjects or a time credit was granted for the completion of a number of courses; the time credit not exceeding one year.

Certain schools also gave a flat credit of one year to college graduates, on the theory—which your committee believe was fully justified by results—that the college graduate who had had the basal sciences in his course could accomplish in three years the work done by a high school graduate in four.

4. In 1898 a statute was passed in Minnesota, requir-

ing that every applicant for a license to practice medicine in that state should have had four annual sessions of study in a medical school. This rule was at first applied by the State Board of Medical Examiners to individuals only; but in 1904 the board voted to refuse license to all graduates of a medical school which granted a time credit on any terms to a graduate or student of a college.

The boards of Iowa, Kentucky, Michigan, Wisconsin, and perhaps other states, have made similar rulings. Thus no medical school in the region covered by our Association can give a time credit to any college graduate without having all of its graduates debarred from practice in several states where they might naturally go. Under such conditions credit is not given and the college graduate is placed on the same time basis as the high school graduate.

5. It is thus impossible for a student to pursue a combined college and medical course in less than eight years, except in the few institutions which have arranged such a course for the benefit of their own students. Since an eight year course is more than many students can afford, the result of this ruling is rather to decrease than to increase the number of college graduates in medical schools.

6. In the judgment of your committee this ruling of the Minnesota board, from which have come the difficulties between colleges and medical schools, was not necessary or wise. There are several considerations, however, which make it doubtful whether it is advisable for this Association to press for a reconsideration of the ruling, and especially doubtful whether we should attempt to secure again the flat credit of one year for college graduates.

There are about 160 medical schools in the United States. Of these, two require a bachelor's degree for admission; at least 50 others require either one or two years of college work or will do so by 1910, and by that date the

number of such schools will probably be as great as 60. About half of these will require two years. This Association has very little interest in the question of time credit in these schools; since few colleges, except those which are specifically organized for that purpose, will give enough medical work to gain a year's credit in them. The general courses in physics, chemistry, and biology are required for entrance to such schools.

While a time credit might fairly be claimed from schools which still admit on the basis of high school graduation, your committee do not believe that such a credit is of importance; since these schools are the weaker and cheaper proprietary schools, and are of a type to be avoided by college graduates.

Thirty-four medical schools in the region covered by this Association are in the list of those demanding one or two years of college work for entrance. The number includes most if not all of the stronger schools—those to which we should send our graduates. The number is sufficiently great to afford ample opportunity for choice.

7. Your committee believe that the influence of this Association should be exerted to secure from all medical schools a requirement of two years of college study for admission; such a course to include at least one foreign language, English, and the basal sciences.

They believe that the interests of both colleges and medical schools will be served by such a requirement; and they believe that some influence such as that of this Association, will be needed to secure and enforce it. The American Medical Association has recommended a one-year course preparatory to medicine. This course includes physics, chemistry, biology and a foreign language. In our judgment these studies represent a minimum admission requirement. We believe also that it is impossible to give

adequate courses in these subjects in one year. There are very few high school graduates who can successfully carry two sciences in freshman year and three sciences ought not to be taken simultaneously by a freshman on any terms. It follows that medical schools cannot stand long on the requirement of one year of college work for admission. They will be forced to advance to two years, or to include part of the basal sciences in their own course, in which case they are likely to fall back to the high school basis for admission.

Or the difficulty might be met by the weaker medical schools in a manner which would rather evade than enforce the requirement of one year's college work. They might add a year of so-called college work to their own courses, extending them to five years. These schools have no proper equipment, endowment or provision for adequate salaries for instruction in science; and a year of real college study cannot be given by them. This preliminary work should be required in a regular college or it will be of little value.

8. There remains a question as to the relations to medical schools of those colleges which are willing to organize and maintain departments which fully represent one or two years of medical work, either on the basis of the higher or the lower requirements for admission. At present a college can gain such credit only by organizing a medical school, giving one or two years of the four-year course.

The medical course naturally separates into two parts of two years each; the first including the basal medical sciences, the second the clinical studies. Your committee believe that the sciences are better taught in college than in medical school. Medical authorities are therefore in error in not recognizing this principle and they ought to encourage rather than prevent the teaching of anatomy, bac-

teriology, histology, physiology, and similar subjects in colleges. Medical schools and state boards should devise with the colleges such methods of inspection and co-operation as will facilitate giving credit for these subjects. The colleges should recognize that if credit is to be given for anatomy and similar subjects, they must be taught in a way which will serve the needs of the future practitioners as well as the ends of science; and that to secure this result there must be co-operation between the medical schools and the colleges.

9. The State Board of Medical Examiners for New York is an earnest advocate for co-operation between medical schools and colleges and for credit for properly conducted college work. They have found great difficulty in preparing a working plan and so far as your committee can learn have not yet submitted a final report on the subject. It is probable that their scheme, when perfected, will afford a fair basis for co-operation within our territory.

The discussion was continued by Professor George E. McLean, State University of Iowa; Professor John F. Downey, of Minnesota; President Charles E. Shelton, of Simpson College, Indianola, Iowa, and Dean E. A. Birge, University of Wisconsin.

PRESIDENT MACLEAN:

For the information of Dean Birge I may state, that two years ago Dr. Zapffe gave a paper before this Association on the subject of the justification of State Boards of Medical Examiners in excluding from examination students of medical colleges that allowed advance credit for work done in a college of liberal arts. A committee was appointed to investigate the matter and to report at the next meet-

ing of the Association. The committee consisted of President King of Oberlin, Dr. Zapffe, and Dean Birge, but the committee did not report last year.

The rationality of the State Board of Medical Examiners in Minnesota has been questioned. As a representative of a college and university that opposed their ruling as long as it could be done, I will not be considered as partial in saying that the board had, as I discovered later, some reason on their side. There is no ground for the suspicion that has prevailed in some quarters that there was collusion between the University of Minnesota and the board. I have no less authority for this than that of President Northrop. The board thought they had at least two strong reasons for their procedure. They believed in this manner they could best exterminate fake and commercial colleges which readily receive diploma mill degrees, and those of little worth, and give shortened medical courses on the basis of these degrees. It was, then, a genuine attempt to raise the standards of medical instruction. They also felt that the smaller colleges were not equipped with men and laboratories to teach the biological sciences as they need to be taught, or their application to medicine, and certain subjects necessary to be taught from their nature, like genito-urinary diseases, would not be offered.

This question which has agitated the colleges of letters will disappear in 1910, when the requirement of two years in a liberal arts college for admission to a college of medicine is enforced.

The following report was presented by Professor Fred N. Scott, of the University of Michigan, delegate to the Conference on Uniform Entrance Requirements in English:

## REPORT OF CONFERENCE ON UNIFORM ENTRANCE REQUIREMENTS IN ENGLISH.

The Conference met at Teachers' College, Columbia University, New York City, on Friday, February 21, at 2:00 p. m., and organized by the election of Professor Francis H. Stoddard as Chairman, and Mr. Wilson Farrand as Secretary.

Delegates were present from the Conference of New England Colleges on Entrance Requirements in English, the New England Association of Teachers of English, and the College Entrance Examination Board. The delegates from the Conference of New England Colleges and the College Entrance Examination Board were accepted as members of the Conference, and the question of future representation was left for subsequent settlement. The delegates from the New England Association of Teachers of English were invited to participate in the deliberations of the Conference. The full membership of the Conference was as follows:

New England Association of Colleges and Preparatory Schools:

Professor Mary A. Jordan, Smith College, Northampton, Mass.

Principal H. G. Buehler, Hotchkiss School, Lakeville, Conn.

Principal William T. Peck, Classical High School, Providence, R. I.

Association of Colleges and Preparatory Schools of the Middle States and Maryland:

Professor Francis Hovey Stoddard, New York University, New York City.

Principal Wilson Farrand, Newark Academy, Newark, N. J.

Professor Franklin T. Baker, Teachers' College, New York City.

North Central Association of Colleges and Secondary Schools:

Professor Fred N. Scott, University of Michigan, Ann Arbor, Mich.

Professor F. G. Hubbard, University of Wisconsin, Madison, Wis.

Superintendent H. E. Giles, High School, Hinsdale, Ill.

Southern Association of Colleges and Preparatory Schools:

Professor J. B. Henneman, University of the South, Sewanee, Tenn.

Conference of New England Colleges on Entrance Requirements in English:

Dean Byron S. Hurlbut, Harvard University, Cambridge, Mass.

Professor Caleb T. Winchester, Wesleyan University, Middletown, Conn.

Professor Wilbur L. Cross, Yale University, New Haven, Conn.

College Entrance Examination Board:

Professor George R. Carpenter, Columbia University, New York City.

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Participating, but not Voting.

New England Association of Teachers of English:

Professor Henry G. Pearson, Massachusetts Institute of Technology, Boston, Mass.

Mr. W. M. Cole, South High School, Worcester, Mass.

After an informal discussion on the general question of the English requirement and of the work of the Conference, it was

RESOLVED, That in the judgment of the Conference

changes to be made in the requirement should be in the direction of increasing the emphasis to be placed on composition.

After the appointment of subcommittees to formulate the work to be done on the next day the Conference adjourned at 10:15 p. m.

At the session on Saturday the following changes in the requirement were made for the year 1912:

1. Tennyson's *Gareth and Lynette, Lancelot and Elaine,* and *The Passing of Arthur* were inserted in the list of Books for Study as an alternative to Milton's poems.

2. *Lycidas* was dropped from the list of Milton's poems.

3. In Group VI of the Reading List, Tennyson's *Princess* was substituted for the *Idylls* transferred to the Study List.

4. In Group V, Carlyle's *Heroes and Hero Worship* was changed to Carlyle's *The Hero as Poet, The Hero as Man of Letters,* and *The Hero as King.*

5. The number of books to be selected in Group V was changed from two to one.

6. In Group III, (Book I) was substituted for (Selections) after *Faerie Queene.*

7. In the preliminary statement of the requirement for Reading and Practice, nine was substituted for ten as the number of books to be offered for examination.

The following motions were lost:

To strike out Bacon's Essays from Group II; to strike out Group III; to substitute three for two in Group VI; and to substitute the wording suggested by the Conference of New England Colleges for the preliminary statement in the requirement for Study and Practice.

On motion it was resolved that when the Conference adjourned it should be to meet one year from that date.

A committee of five, consisting of Professors Cross, Henneman and Baker, and Messrs. Giles and Farrand, was appointed to investigate thoroughly the whole question of the English entrance requirement, to secure information and advice from universities, colleges and schools, and report to the individual members of the Conference as early as possible before the adjourned meeting. The committee was further instructed to consider a plan for the permanent organization of the Conference. After luncheon, tendered by the local delegates, there was an informal discussion of a plan for a modified requirement suggested by Professor Scott, and the Conference adjourned at about 4 o'clock.

The discussion was continued by Professor Fred N. Scott, of the University of Michigan, Ann Arbor, Michigan; Dean E. A. Birge, University of Wisconsin, Madison, Wisconsin; Dean C. M. Woodward, Washington University, St. Louis, Missouri; Principal Coy, Hughes High School, Cincinnati, Ohio; Professor C. A. Waldo, Purdue University, Lafayette, Indiana, and Mr. F. M. Giles, Hinsdale High School, Hinsdale, Illinois.

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The report of the delegate to the College Entrance Examination Board was presented by Mr. Edward L. Harris, of Central High School, Cleveland, Ohio:

## REPORT OF DELEGATE TO COLLEGE ENTRANCE EXAMINATION BOARD.

The annual spring meeting of the College Entrance Examination Board was held at Columbia University, New York, May 11, 1907. Your representative was in attendance. The regular arrangements for the examinations and the examiners for 1908 were made. The question of co-operation with the New York State Examination Board again came before the body. It was decided not to enter into such an arrangement. The Board of Review, the appointment of which was reported to you one year ago, made the following report:

1. That a commission be established, in accordance with the recommendations of the Committee of Five, to consider the revision of the definition of the requirement in Physics.

2. That the Modern Language Association be requested to revise the list of books recommended in French and German, and to consider the question of the number of pages recommended to be read.

3. That a commission be established, in accordance with the recommendations of the Committee of Five, to consider the definition of the requirement in History.

The following amendment was also passed:

The Chairman shall, with the approval of the Executive Committee, appoint annually a Committee of Review, to consist of seven members, three of whom shall be representatives of secondary schools. This committee shall consider all criticisms and suggestions that may be made to the Board in regard to its requirements, and shall make definite recommendations in regard to any modification of these requirements that may from time to time seem desirable. The committee may co-operate with committees

of other bodies appointed to formulate entrance requirements, or may, with the approval of the Board, arrange for the appointment of such committees.

The last meeting of the College Entrance Examination Board was held at Columbia University, November 9, 1907. Your representative was unable to be in attendance at that meeting. In addition to a slight amendment to the constitution, the following were the essential matters of business that were transacted:

1. An earlier date of the examinations of 1909, namely, June 14-19.

2. A report of the Committee of Review, especially as to the revision of the definition of History, the entire question having been referred to the American Historical Association, instead of establishing a separate commission as formerly reported.

3. The recommendation, and adoption of the recommendation, that the present list of musical composition for the examination in Musical Appreciation should remain unchanged for the years of 1909-1911.

4. The same Committee of Review was appointed for another year.

This committee met in New York, January 29, 1908. A Commission in Physics, the same plan as recommended last year at the North Central meeting by your President, was established. This commission is composed of five specialists, and two from the four associations: the New England, the Middle States and Maryland, the Southern, and the North Central. This is a very important commission, and it will have great influence on the entire country in this subject.

Within two weeks, two other meetings of the secondary school men of the Board were called to meet in New York,

but your delegate felt that he could not attend in justice to his other duties.

The next annual meeting of the Board will be held in New York, at Columbia University, on April 11th, and your representative expects to be present.

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The report of the delegate to the National Conference Committee of the Association of Colleges and Preparatory Schools was presented by President George E. MacLean, of the University of Iowa, as follows:

## REPORT OF DELEGATE TO THE NATIONAL CONFERENCE COMMITTEE OF THE ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS, ASSEMBLED AT WILLIAMSTOWN, JUNE 28 AND 29, 1907.

### MEMBERSHIP OF THE COMMITTEE.

The following delegates were duly appointed by their respective associations for this Conference:

President George E. MacLean, the University of Iowa, from the National Association of State Universities.

Professor Herman V. Ames, the University of Pennsylvania, from the Association of Colleges and Preparatory Schools of the Middle States and Maryland.

Dr. William C. Collar, Roxbury, Massachusetts, from the New England Association of Colleges and Preparatory Schools.

Professor Allen S. Whitney, the University of Michigan, from the North Central Association of Colleges and Secondary Schools.

Chancellor James H. Kirkland, Vanderbilt University,

from the Association of Colleges and Preparatory Schools of the Southern States.

Head Master Wilson Farrand, Newark Academy, Newark, New Jersey, from the College Entrance Examination Board.

Professor John K. Lord, Dartmouth College, from the New England College Entrance Certificate Board.

## THE CALL.

A preliminary notice of a conference to be held in Williamstown, Mass., or New York City, on June 28 and 29, was sent to all the delegates June 17 from Iowa City by President George E. MacLean, President of the Conference of August 3 and 4, 1906. Replies signifying their ability to attend such conference in Williamstown were received from all the delegates except Chancellor Kirkland, who reported that it would be impossible for him to be present at either place. The final notice of the meeting was issued from Williamstown by President MacLean.

## THE CONFERENCE.

Williamstown, Mass., June 28, 1907.

In accordance with this call there met in informal session at 3 p. m. on June 28 in Griffin Hall, Williams College, President George E. MacLean and Professor John K. Lord. Dean Frederick C. Ferry and Professor Asa H. Morton, of Williams College, were invited by the two delegates present to sit with them in informal session and Dean Ferry was requested by President MacLean to act as Recording Secretary of the conference.

President MacLean reported that he had within a few days received information that Professor Ames, Dr. Collar and Professor Whitney would be unable to attend the conference; that Professor Ames had asked Head Master Wil-

son Farrand to represent the Middle States Association in his stead and that Dr. Collar would send a substitute.

President MacLean reported further that all the Associations who appointed delegates for the conference of August 3 and 4, 1906, had adopted in full the resolutions voted by that conference, with the exception of the Association of Colleges and Preparatory Schools of the Southern States; and that this Association had adopted the second and third resolutions as printed in the minutes to the extent of the appointment of a delegate to attend any conference that may be held.

A general discussion in regard to the subjects to be considered by the conference followed.

At 5:45 p. m. the informal session of the conference was adjourned.

The committee assembled in formal session at the home of Professor Morton at 8:30 p. m., President MacLean, Professor Lord, Mr. Farrand (representing both the College Entrance Examination Board and the Association of Colleges and Preparatory Schools of the Middle States and Maryland), Dean Ferry, and Professor Morton being present. By unanimous vote President MacLean was elected President of the conference; Dean Ferry was requested to act as a member of the conference as a substitute for the delegate of the New England Association of Colleges and Preparatory Schools, subject to the approval of that Association, and was appointed Recording Secretary pro tem; and Professor Morton was requested to attend the sessions of this conference as a corresponding member.

On motion it was unanimously voted that subject to revision at the next session of this conference, the name of this committee be "The National Conference Committee of the Associations of Colleges and Preparatory Schools."

President MacLean presented a letter announcing the

election by the Presbyterian College Union of the Middle West of a delegate to this conference and asking that the delegate be received. On motion it was voted that the request be laid on the table until a later session of the conference.

Mr. Farrand reported that the Association of Colleges and Preparatory Schools of the Middle West and Maryland had appointed a committee to consider the advisability of the organization of a college entrance certificate board or a commission for accrediting schools, as recommended in the resolution on that subject adopted at the Williamstown conference of August 3 and 4, 1906.

Professor Lord then proposed the following resolution:

Resolved, That this committee accepts with much gratification the report of this action of the Middle States Association as given by Mr. Farrand.

The resolution was unanimously adopted.

The conference was adjourned at 11:00 p. m.

June 29, 1907.

The committee re-assembled at 9:30 a. m. in Griffin Hall, the attendance being the same as at the previous formal session.

On motion it was unanimously voted that the name of this committee stand as proposed in the last session of the conference, namely, "The National Conference Committee of the Associations of Colleges and Preparatory Schools."

Professor Lord moved the adoption of the following resolution:

Resolved, That the purpose of this committee shall be to consider requirements for admission, matters of mutual interest to universities, colleges, and preparatory schools, and such other questions as may be referred to it by the Associations.

The resolution was unanimously adopted.

President MacLean reported that a letter had been received from an organization of teachers of Physics asking that action be taken by this committee concerning the admission requirement in that subject. After discussion, Mr. Farrand presented a resolution as follows:

Resolved, That this committee commends the action of the College Entrance Examination Board in calling upon the Associations of Colleges and Preparatory Schools to co-operate in the formation of a new entrance requirement in Physics, and urges those Associations to accept the invitation.

The resolution was unanimously adopted.

Professor Lord moved the adoption of the following resolution:

Resolved, That this committee recommends that both the inspection of the preparatory schools and the record made in college during the first term or semester of the freshman year by the pupils from such schools be the basis for granting the accrediting or the certificate privilege.

The resolution was unanimously adopted.

Dean Ferry presented a resolution as follows:

Resolved, That this committee recommends that, in the transfer of collegiate students, the following points be considered in determining the standing of the college or universities concerned:

(1) the requirements for admission;

(2) the grade and amount of work required, the length of the course, the character of the curriculum, and the degrees conferred;

(3) the number and qualifications of the instructors and the proportion of instructors to students;

(4) the separation of the Collegiate Faculty from the

government and the instruction of a preparatory department;

(5) the acceptance of the graduates by the graduate schools;

(6 equipment; and

(7) endowment.

The resolution was unanimously adopted.

On motion it was voted that the petition of the Presbyterian College Union of the Middle West be taken from the table and that President MacLean be requested to reply to the same with explanation of the facts.

On motion it was voted that President MacLean, Mr. Farrand and Professor Ames be appointed a committee to submit for adoption at the next conference a constitution for the government of the National Conference Committee.

On motion it was voted that Mr. Farrand and Dean Ferry, together with such associates as they may see fit to select, be appointed a committee to report at the next conference concerning a scale of values for the interpretation of admission requirements.

A vote of thanks was extended to Williams College for the courtesy of a room for its meetings, and to Professor Morton for the hospitality extended to the committee in his home.

The minutes were read and approved, subject to verbal changes.

The committee adjourned sine die at 12:25 p. m.

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It was voted that Mr. F. L. Bliss, of Detroit University School, be appointed as a standing delegate to this commission for this Association.

The President then announced the following committees:

*To Audit the Treasurer's Report*: Professor C. A. Waldo, Purdue University, Lafayette, Indiana; Superintendent F. L. Smart, Davenport, Iowa; Principal Frank Hamsher, Smith Academy, St. Louis, Missouri.

*To Recommend the Time and Place of the Next Annual Meeting*: Principal F. L. Bliss, University School, Detroit, Michigan; Professor F. W. Ballou, University of Cincinnati, Cincinnati, Ohio; Professor John F. Downey, University of Minnesota, Minneapolis, Minnesota.

*To Nominate Officers for the Ensuing Year*: Director George N. Carman, Lewis Institute, Chicago, Illinois; Dean C. M. Woodward, Washington University, St. Louis, Missouri; Principal Edward L. Harris, Central High School, Cleveland, Ohio; President James H. Baker, University of Colorado, Boulder, Colorado; Professor A. S. Whitney, State Inspector of Schools, Ann Arbor, Michigan.

## SECOND SESSION, FRIDAY AFTERNOON.

The following paper was read by Dean Thomas Arkle Clark, University of Illinois, Urbana, Illinois:

### THE TREATMENT OF INCOMING FRESHMEN.

It is not truer that "The boy is father to the man" than it is that the freshman during his first few weeks in college, in the large majority of cases, settles his entire future career as a student. His friends, his amusements, his habits of study, his morals, his attitude toward everything connected with his new life are pretty definitely fixed before Thanksgiving. Mr. George Ade's transformation, in "The College Widow," of Bud Hicks who, struck town in September as an unsophisticated country "rube," and who went home at Thanksgiving a real college sport, is of course exaggerated for stage effect, but it suggests truthfully the real situation. The transformation of the freshman is so rapid and so complete that college authorities may well give it their careful consideration; for it is out of freshmen that we make seniors, and graduate students, and—some of us hope—men.

As I understood the assignment which was given to me by the Executive Committee of this Association, it was intended that I should make some investigation among the representative colleges and universities of the country with regard to what is being done to advise and direct freshmen students as well as to supervise their work and conduct. It was hoped that from the material and suggestions which it was thought would come to my hand, helpful ideas for us all might be evolved. It was generally agreed that the sub-

ject is an important one, which all colleges have no doubt given thoughtful attention to.

I accordingly sent to the president, to the dean, or to a prominent professor of about sixty representative institutions the following letter, with an explanation of my purpose in making the inquiry.

"I should be glad if you would tell me in detail what methods, if any, are employed in your institution for supervising either the work or the conduct of fresmen students. I should like to know whether such supervision is done through advisers, class officers, or other college officials.

"What methods are employed to discover whether or not a student is delinquent in his work, and what is done with him when such facts are discovered?

"At what point in the student's career is disciplinary action taken on account of delinquency in studies or conduct?

"To what extent is an effort made to know what individual students are doing at the beginning of their college course?

"I should consider it a favor if you would send me any printed matter, blanks, or other helps which you utilize in securing information about students."

I received replies of some sort or another to this letter from thirty-seven institutions, representing what is being done from Massachusetts to California, and from Minnesota to Texas. The careful perusal of the returns leads me to the conclusion that something is being done in practically every institution in the country to get into touch and to keep in touch with the work of students, that little difference is made in the treatment of the work of freshmen and that of other students, and that much that is being done is somewhat mechanical and machine-like, with little attention paid to the needs or habits of the individual student.

The action serves to give a virtuous feeling to the college management and it is usually harmless to the student, who goes on his way—sometimes a brief one—undisturbed. There seems to be a willingness on the part of most college officials that something be done, a recognition of the fact that something ought to be done—but other things are often thought more important, and something must be omitted. As one man puts it,

"I regret to say that no organized effort is made to ascertain what individual students are doing at the beginning of their college course. I appreciate that this is a critical time in the career of all students, and that this is one great element of weakness in institutions of this sort. As matters are now organized, however, no one seems to have the time to give to this matter, important though it is." And yet there are but two hundred students in the college referred to.

In advocating the supervision of the work of freshmen, as I have said in a previous paper before the Association, I do not forget the value of freedom, of independent action, of responsibility and initiative on the part of the new student. Much of the value of a college training comes from the fact that the student is away from the fostering care of the home, and at liberty to spend his own money, decide upon the employment of his own time, choose his own friends and come and go within sane limits as he pleases. The boy who is so unfortunate as to be compelled to live at home while he is going to college is losing half of the training to which he is entitled in a college course. But being thrown upon his own responsibility should not mean that no one knows where he is going, or that no one is to be at hand to give the word of caution or advice in times of danger or of trouble. It is conceded that the young people composing the freshman classes of our col-

leges are not to be treated as children; no more should they be left entirely to their own devices or be taught according to graduate school methods.

Whatever is done to advise, or help or look-after the fresman must be done soon. College is a new experience to the freshman and he gets at it early. Nothing will ever take the place of a good start in his work. Half the men to whom I talk concerning their failures lay it to a bad start. "You can lose more time in a week than you can make up in a month," a freshman said to me lately. The average freshman is a pretty reasonable being, I have found, and if he fails it is through carelessness or ignorance rather than through vicious going astray.

Very few high school students have learned what hard, consistent study means. They misjudge what is expected of them in college, and often before they are aware they are so far behind that to catch up seems impossible. Not only do they misjudge the amount to be done, but the right methods of study also are unknown to them. They have not yet learned the application and the concentration necessary to get on easily under the new conditions and with the new work. "I supposed it would be the same as it was in the high school," is the stereotyped excuse for the freshman's downfall. The freedom of college life deceives them for a time, and they frequently awaken too late to recognize the fact that freedom for them means only added responsibility.

Many also appreciate too late the fact that their preparation has not been all that it should have been, and that if they are to make good it must be by the hardest and most consistent sort of toil. New temptations—social, financial and moral—come to them from which they have heretofore been shielded, and they come so suddenly and so unexpectedly that it is a wonder so few are carried away by them. The world

is new and the freshman is curious to know all about it, good or bad. There are always those to say "Come;" there should also be someone to utter the word of warning.

Many of these difficulties might be forestalled if at the very outset the freshman could be given a little warning, a little friendly advice, a heart-to-heart talk, on the new situation and the responsibilities which the new conditions have imposed. In institutions where daily chapel exercises are held there is ample chance for such talks by whatever college official seems best fitted to give them. In institutions where there are no regular exercises which bring the college community together there should be pretty frequent and familiar talks by some college officer with the members of the freshman class. I am of the opinion that if the freshman could listen to four or five twenty-minute talks during the first six or eight weeks of the semester on "Methods of study, the spending of money, the employment of time, the value of self-control, college honor," and such timely subjects, the percentage of failures at the end of the semester would be largely cut down.

In the supervision of the freshmen class there is much to be gained by a centralization of the work. The college community is usually a circumscribed one and often a congested one. Everyone knows about everyone else; and no-one is hard to get at. Besides, tradition carries a reputation over from one year to the next and is a great help in suggesting who is able and willing to give intelligent advice. If the responsibility is broken up, uncertainty of action on the part of the student results; he is in doubt as to whom to go to if in need of help. Tradition should make this certain. Otherwise the effectiveness of the organization is impaired. Whatever may be the organization or disposition of the work it should in the end be under the general supervision of one man. The lives of students, even in a

large institution, are too intimately interwoven, too closely allied the one with the other for the general supervision to be divided. It is sometimes a good deal better to talk to the freshman's roommate than to the freshman if one wishes to accomplish his purposes and to bring about reform. The supervising officer should know both and have control over both. One general method should prevail throughout the whole institution or the success of the work will fall short of what is possible. No better illustration of the success of centralization in a large institution is needed than that which is seen in the wonderful work of Dean Briggs and later of Dean Hurlbut at Harvard University.

In a small institution the president is, of course, the proper officer to look after such work or, where his duties make it impossible, the dean or some general officer who may give the time and thought necessary to the work.

There are a good many devices, such as monthly or weekly reports by instructors, on the work of students, the requiring of excuses for absence from class exercises, and the relation which exists between the student and a class officer or adviser, all of which are used to get information concerning the student's work.

Most institutions, I discover, require reports to a designated officer (the president, the dean, or some other official), of *delinquent* students only, and at a time so late in the semester, or at such wide intervals as, it seems to me, to be of little value. I am of the opinion that the reports to be of any value should be required upon the work of all students of a class, and should be made early enough in the year for the student to find it possible to recover lost ground if he is behind. The first report of work should come in at the end of the second or third week preferably, and certainly not later than at the end of the first month. Any wide-awake teacher can form a pretty definite idea of

every member of a class within a month, and if he cannot do so he ought not to be teaching freshmen.

My reason for advocating the system of requiring reports upon the work of *all* students of the freshman class at stated intervals is based upon my knowledge of the irresponsibility and indifference of the average college instructor with regard to such work. Most instructors are much more interested in the subjects they teach than in their students, and can not be counted on to look after the individual. The more degrees they have the more likely is this to be true. Original research, advanced work, and not the making of the men, seems just now the fetish. As a prominent college officer in the largest institution in the Middle-West said to me only a few days ago with regard to the matter of making reports, "The instructor needs prodding at all times, and requires someone to be eternally after him." It is only when the reports are exacted on a definite date upon all freshmen students that the required information is forthcoming.

If reports on scholarship are required frequently, and the information is at all full, the instructor will feel himself abused if the blank to be used is not carefully prepared in order that the greatest amount of information may be given with an expenditure of the least effort. A good deal of skill has been shown in the various institutions where this system is in operation in devising a report card which will furnish full information without great clerical labor. I shall be glad to show, to any one interested, the one used at the University of Illinois for the excellent features of which we are indebted to the thought of several other institutions.

The reporting to a central office of all absences, for whatever cause, in my mind, has a very decided advantage over the method which is employed in many institutions of

throwing upon each individual instructor the responsibility of receiving excuses from students and of reporting only such absences as do not seem to be covered by a legitimate excuse. Such a method may develop mental resourcefulness in students who are regularly absent, but it does not encourage truthfulness. A few years ago when it was the custom at my own university for students to offer excuses for absence, an instructor remarked to me that a clever young freshman had within the previous few weeks offered seventeen excuses for absence, all good and all different. The attitude that absence from class is simply a fact to be reckoned with only in relation to its influence upon the student's work, seems to me to be the normal one. Whether he is absent because he has smallpox, or is lazy, or in love, the effect on his work in any case is detrimental and may very well be taken as legitimate cause for his not being allowed to continue with a course.

At the University of Illinois we employ a system similar to that which is used in many other institutions. Reports of all absences are made daily to a central office. Whenever a freshman receives in any course a number of absences equal to one-eighth of the total number of recitations for the semester he is dropped from the course and may not continue without the permission of the instructor in the course and of a special committee before which he must appear. Students are given formal notice from the office when they have received half the limit of cuts or more. The effect has been to relieve the instructor, to cut down the number of absences, and to reduce lying to a minimum.

In addition to these matters of information I have personally found very helpful, also, the keeping of a card index of individaul students. Whenever a student comes in to see me and I see from thirty to seventy-five daily, I make a card for him on which I put down all matters of informa-

tion concerning him—his course, the place where he lives, the organization to which he belongs, the name of his roommate, his home town, or any details which will help to differentiate him from other students, or which will help me to remember his situation, his character, or his needs. Sometimes if I am afraid that I shall forget him I add some little item of personal description which will fix the matter in my mind. It is surprising to me what a large number of students will in this way, in a very short time, become familiar to me; and it is interesting to see to what extent such a system develops personal interest in the individual.

No matter how complete the mechanical devices may be for keeping track of the work of freshmen, they will be useless unless they are combined with a complete and close personal relationship between the individual freshman and some college officer. Nothing will take the place of this. The freshman is to be left free and independent, but there should always be someone who has time and who is willing to talk on any topic that agitates or interests the mind of the new student. In no institution, no matter how large, should it be possible for a freshman to feel that no one knows what he is doing and no one cares.

In a large number of institutions there is now found a system of class advisers in which one man or several men have an advisory relation with the students of a certain class. I have endeavored to find out, as far as possible, what the duties of such officers are in the various institutions. So far as I can discover the main duty of the class officer concerns itself with the student's schedule. Having decided whether the student might better elect Greek history or farm mechanics, whether he should take rhetoric at eight o'clock or at one, whether he may carry seventeen hours of work or be cut down to twelve, his chief functions have been performed. These matters are important, but

they are by no means the chief things which a class officer should do for the freshman.

He should be a man of broad culture who has time enough to talk with the young student, the number of students assigned to him should not be so large as to make it impossible for him to form a personal acquaintance with each one, and he should have a sufficient sympathy for young people and a wide enough knowledge of human nature to make him the friend of those whom he advises. Such men are not impossible to find if college authorities wish to find them, and if we are to develop character as well as scholarship, if we are to save as large a part of our freshmen class as possible, someone should have regard to the character of the teachers and the advisers to whom they are assigned.

I should be the last man certainly to decry high scholarship as a basis for appointment or promotion in college, but I have sometimes wondered if we are not at times inclined as college officials to over-value an instructor's ability to write books or to conduct original investigation, and to give too little weight to the strong sympathetic teacher. In our search for scholars we have often missed good teachers. A friend of mine, who is both a good teacher and a doctor of philosophy, said to me not long ago that the scholar under whom he did his graduate work, a well-known man in one of the oldest and largest institutions of this country, in advising him said, in substance, "Don't pay much attention to your students when you get into college. The good ones will get on alone, and the poor ones might as well be thrown out. The only thing that will win promotion and preferment for you will be original research and publication. Good teaching doesn't count these days."

I am afraid that in too many cases the wisdom of his advice is apparent. Too often we are after the spectacular,

or that which can be given space in the papers and which will make a show. But the development of character is still worth while and should never be lost sight of in our college work. The men who are able to do this should be sought as earnestly, promoted as rapidly, and paid as liberally as are those men who have profound scholarship but little knowledge of human nature or interest in those they teach. Many of our freshmen failures may quite as legitimately be laid to the indifference of the teacher as to the fault of the student. Not until we give as careful attention to the choosing of teachers of freshmen as we do to the selection of those who are to have charge of graduate work, will we do for our freshmen students all that we may be expected to do. The character of the freshman teacher has quite as much to do with the result at the end of the semester as has the character of the freshman.

My ideas, then, of the sane treatment of the incoming freshman are these. To furnish for him the best and the most sympathetic teaching possible; to give him whenever it does not seem directly in opposition to his best interests entire liberty to come and go as he pleases; to have within reach all necessary information with regard to his studies, his attendance, his friends, his habits of life, in fact, anything which will individualize him and separate him from the crowd. And to have this information as early as is possible in his college course, and at latest by the end of the fourth week. To give to him during the early part of the first semester specific talks which will acquaint him with college customs, college life, and the new and peculiar temptations and conditions which surround him. To have someone who will show a sympathetic interest in the individual, and who will make it evident to him that some one knows what he is doing, and that someone cares.

Even in our largest institutions I am sure that this is

possible—possible even for one man without much help. With an interested corps of teachers in an institution of moderate size it would be even an easy and a pleasant task. Very few of our institutions are in large cities; and even those that are so located are usually isolated, or in rather circumscribed localities. Student communities in general are congested ones, where he who wishes may soon get the run of things and know what is going on and who is the motive power. I think it will be admitted that I am not ralical; that a general knowledge of what freshmen are doing, a system which aids in the securing of such knowledge, and the sympathetic attitude toward the individual is not undesirable. Insomuch as the members of the freshman class fail, or go astray, we have deprived ourselves of upper classmen and of graduate students. Our only hope is in the entering class; and if we succeed with them we shall have succeeded with the classes that follow. There will be but few scholars if we lose the freshmen.

There is no other chance so opportune for the building of character, for the development of men, as that which is presented by the freshman class of any college, and the man who gives his time and his thought to it is doing as noble an educational work as is the most noted scholar in the land.

The discussion was continued by Dean E. A. Birge, University of Wisconsin, Madison, Wisconsin; Dean Thomas Arkle Clark, University of Illinois, Urbana, Illinois; President W. L. Bryan, Indiana University, Bloomington, Indiana; Superintendent J. W. Carr, Dayton, Ohio; President John W. Cook, Northern Illinois Normal, DeKalb, Illinois; Principal J. E. Armstrong, Englewood High School, Englewood, Illinois; Professor A. W. Rankin, University of Minnesota, Minneapolis, Minnesota; Professor E. J. Babcock, University of North Dakota, Grand

Forks, North Dakota; and Principal Arthur S. Wilde, Evanston Academy of Northwestern University, Evanston, Illinois.

DEAN BIRGE:

I do not think it would be quite proper to let the subject drop without having a word said in discussion. I am entirely in agreement with the general principles laid down in the paper. There is one matter, however, in which my experience would lead me to differ, and that is in respect to the reporting of absences to the central authority and receiving excuses there. We have followed in our university, the University of Wisconsin, in various forms the plan of having absences reported and considered by a central committee and that of leaving the absences in charge of the individual instructors. We have found the latter plan, on the whole, distinctly more advantageous. It was our experience that when we had a rule somewhat similar to that laid down in the paper it became a matter of pride on the part of the student to secure as many cuts as the law would allow him, and that the student who would naturally attend every class was looked upon as somewhat of a weak-kneed individual if he did not cut for the purpose of getting as near to discipline as he could safely go. When we turned over the care of the absences to the individual teachers, telling the students that they were expected to be present at every class, that there was no allowance of cuts at all and that they were expected to account to the individual instructors for every case in which they were absent, we found that the number of absences decidedly decreased. That has been in effect with us for several years, and absences which become noteworthy on the part of students are reported to me as Dean. Under our system of keeping accounts the absences of each stu-

dent are noted on cards which are turned in with his report at the end of the semester, and we have found no special tendency to increase the number of absences. A few students need to be checked on the number of absences, but I think, in fact, I am very sure, that the total number of absences under the system of leaving it with the instructors has been very decidedly smaller than when it was in the hands of a central committee with a disciplinary limit set on the absences and the warning when the student approached the danger line.

DEAN CLARK:

Perhaps I ought to say that our own experience has been absolutely the opposite. The instructor is usually indifferent as regards the matter of absences and ordinarily would not know. Our rule for twenty-five or thirty years was that students might not have more than three unexcused absences. Any excuse went. We all knew that when I was in college, and I think the students afterwards were no less keen than we. It simply meant stopping at the desk and saying that one felt rather tired or sick or had been out of town or in some other unusual mental condition the day before, and that settled it. I am sure that absences have been cut down one-half since we adopted the other regulation. I should say that there are not a dozen students in 3,000 who feel it an obligation under which they are resting to take all the cuts coming to them.

PRESIDENT BRYAN:

We have been trying two devices with freshmen which seem worth while. An instructor of freshmen in English composition gives two hours of instruction in the week to his section and gives the two hours of time besides for conference with members of the section one by one. In

this way it is possible to meet each freshman for a short time several times in the term. In freshman mathematics the instructor meets the class four times in the week in recitation and for one hour in the week he meets these students in groups of four or five for an hour, and in this way each student comes into very close touch with the instructor each week. We are particularly well pleased with this latter device. It would seem that if the student has four recitations a week in freshman mathematics in a section not exceeding twenty-five, if he has besides that an hour's conference each week in a group of four or five, he should be able to tell whether or not he is fit to carry that work.

DEAN BIRGE:

If I may speak a word in following that—we have been following the same plan in mathematics, although with a slight difference in practical details. The present professor of mathematics told me the other day that they were developing a system of chronic paupers, that the students who did not know very much about mathematics were the ones that were there at the conference every time and were getting all the help they could, and that they had had to assure the students that they could not get through the examinations at the end of the semester with what they picked up in conference. Of course that is not true of the majority of students. Most of them get a good deal of benefit from it.

SUPERINTENDENT CARR:

I do not wish to engage in this discussion at any length, but I would like to emphasize and note one or two statements that have been made by Dean Clark. As a public school man and as a father of four children who have gone

through the freshman class of college, I feel very deeply the necessity of having as instructors in our colleges men and women who are thoroughly interested in the students, not simply as to whether they are absent or tardy, but as to what they are doing and who are able to direct their course in college; and I think it is a sign of remarkable progress in our college work when college men in a meeting like this will take the interest and time to discuss this question. As a public school man, I want to say to you that we sometimes hesitate whether to advise students to go to college or not, and I want to say to you that it is a problem many times whether they should go or not. When the time comes that the colleges will look after the moral interests and welfare of these young people, it will mean much to the homes of this country and much to the country we love, and I believe much to the colleges themselves; and I do not believe, for one, that the colleges can address themselves to any subject that is of any more vital importance to higher education than this very question of caring for the freshmen. A great many of the troubles we have in secondary schools, that you have not even yet been able to supervise us out of, grow out of certain college practices that must be eradicated or trouble and more trouble is to come in the future.

PRESIDENT COOK:

Mr. President, I wish to add only a word. There seems to my mind a defect in the assignment of this kind of work rather indiscriminately. It may be that the man who has the work in composition or literature or mathematics is fitted for it and it may be that he is not at all fitted for it. It seems to me that there should be a very careful and intelligent examination—as has been done in one of the institutions of the state to which I should more particularly

refer if the gentlemen involved were not present—into whether or not the man has a genius for that kind of work, that sympathy of disposition for these young men and a devotion to this work which will see that it is done well, and there can be, I think I need not say, no nobler work. Those of us who are directing young people to the universities feel far more solicitous for the way that work is done than we do with regard to the mathematics or to the philosophy.

PRINCIPAL ARMSTRONG:

Mr. President, it may not be expected that I, as a secondary school man, should have anything to say on this topic, but as a matter of encouragement of what the universities and colleges are doing for freshmen, I would like to say that it is quite different from the attention that was given to first year students when I was in the university. We had what was called student government and we looked after all those things ourselves, until at last it became necessary for the chief justice of the student court to fine the president for not doing his duty, and then the government went under.

There were two or three things that were spoken of by Dean Clark that impressed me as of great importance for the consideration of secondary school men. One was the fact that any school is apt to treat all its pupils as being of the rank of development of its oldest students or pupils. It is the tendency of the high school to treat its first year pupils just the same as its third and fourth year pupils. Now when we come to think of the very rapid change of the pupils in growth, the maturity of the pupil of fourteen and that of eighteen, we can easily see what a mistake we are making in treating our first year pupils in anything like the same way that we do our third and fourth year

pupils, and that brings me to think, too, of the fact that the high schools have stood trembling between the criticisms of the community and those of the university above them; that they have not dared, it seems to me, in many cases, to even state their problem and act intelligently upon the things they find, the conclusions they are able to draw themselves, because of the fear of not heeding the demands of the taxpayer below and of the higher institutions above them. So what I would plead for is that we should give more attention to the need of different treatment, of conduct, of everything pertaining to the life of the first year pupil, and that we should be independent enough to work out our own methods of treatment of the pupil. The kindergarten method of making things pleasant for people creeps up through the intermediate school and often into the high school, as if there had been no change in the character and the development or the needs of the pupil.

PROFESSOR RANKIN:

In Minnesota we have prepared a statement which the superintendent or principal of the high school sends on to the university to which the student may be accredited in such a way that the principal or superintendent has an opportunity of giving us some information as to the personal habits of the student who is sent on. It seems to me that the high school men have information about the student during the four years there which should be of great service to the university authorities, and I believe that we should take advantage of that and that the university should expect from the high school man some information not only as to the scholastic attainments and ability and capacity, but also something as to the personal habits of the student, so that we may have something to start with when

the student comes in. It is a new thing, but the superintendents are heartily in favor of it and say they will cooperate with us to that extent. They say (I am not sure that they will, however) that they will make a discrimination between those who are graduated and whom they consider fit for university work and those who are graduated and whom they do not believe fitted to go into university work; they will say, "This person is graduated, but we do not believe he has the capacity or is desirable to go into the university work."

DEAN BIRGE:

We have the same experience. We have the same opportunity and occasionally a word or two reaches us, but those reports are placed on file at the university, they are part of the official reports of the university and every once in a while a student goes to see what his report was and he has seen occasionally that he was not sized up as high as he thought he ought to be and the matter has gone back to the high school principal and made him trouble, and the result is that the high school principals, while occasionally sending us a word that would help us, have on the whole reported the full work of the student and left us to draw our own conclusions on it, and as a whole I think we can tell by the report what he has been doing.

While I am on my feet I would like to tell a story that happened this year. A boy came to the university who was a brother of a student who had been there for some time and was a very good student, but this younger boy would not work and I got after him a number of times—he was in my immediate charge; but finally the situation got so that it was necessary apparently to drop him. I sent for the brother and said, "What is the matter? What is the reason your brother won't, apparently, do any work?" "I

will tell you, Professor, just how that is," he said. "I was always a good student and Bill" (to give him a name that doesn't belong to him) "was not, and my father thought I could do well in the university and he sent me here. He thought Bill couldn't stand it in the University of Wisconsin and he sent him to a college where he would be looked after," and he named one of the best colleges in the northwest—not in Wisconsin. I asked him, "Why didn't it work?" He said, "Well, the fact was, Bill found there a whole bunch of boys whose fathers sent them for the same purpose."

PROFESSOR BABCOCK:

I just wish to call attention to one point which was brought out partially in the address, and that is, I believe, the importance which should be attached to giving an inspiration, a setting forth of principles which should guide the freshman on through the rest of his college course, and I believe that the colleges, the universities, are to some extent at fault in not presenting to their freshmen classes, as far as their means will permit, men who are of sufficient age and sufficient skill and who are sufficiently willing to break away from the text book, from the library, to bind the freshman to something higher and to a principle which will guide him all the way through his college course. Now I believe that if it were possible we should assign our experienced men in the university to the freshman class, especially men who will break away and give ideals to be aimed at in the freshman work.

PRINCIPAL WILDE:

It seems to me not necessary that all responsibility should be left to the university. We are trying an experiment in our academy this year which we have found help-

ful thus far. The principal of the school is meeting members of the fourth class this year and discussing with them college life, indicating some changes in manner of instruction and now and then giving a lecture in college form, the student taking notes and going through the matter as he would in college class. The matters of discussion will be such matters as social life in college, the college fraternity and its relation to it, the student in relation to the work, in relation to his fellow students, and so forth. Thus far I think there has a great deal of interest been manifested in this course. I think one of the advantages in the course is that the principal himself or the instructor enters into closer contact with his graduating class, with mutual advantage.

Preliminary statements of committees on revised definitions were submitted as follows:

## COMMERCIAL SUBJECTS.

PROFESSOR E. V. ROBINSON, UNIVERSITY OF MINNESOTA.

Your Committee on the Definition of Units in Commercial Subjects begs leave to submit the following report:

In the first instance, it may perhaps be well to indicate some things which the Committee has not undertaken to do.

It has not undertaken to argue again the old question of formal discipline versus utility. It is assumed that the two are not incompatible; in other words, that a subject does not need to be useless forever after in order to serve as a means of formal discipline.

It has not sought to prove that commercial units should be accepted for college admission because commercial subjects have cultural as well as vocational value. It is assumed that any subject demanding systematic application of

the mind, and bearing a vital relation to life, has a cultural value.

It has not argued that vocational education at the public expense is justifiable. That question seems to have been settled some time ago by the establishment of schools of law, medicine, engineering, etc., supported at the public expense.

It has not attempted to establish the proposition that education for business can be taught as effectively as education for law, medicine or engineering. That would seem to be self-evident; and the great increase in the number of schools offering commercial subjects and in the number of students pursuing such subjects during the last ten or fifteen years, would seem to establish this conclusion on the basis of experience.

It has not attempted to make out a course of study for secondary schools, but to define units of work as a guide to such schools as may wish to offer them.

It has not sought to determine what studies are the best as a preparation for college; though if forced to choose between the dictum of the Committee of Ten, that those studies which best prepare for college best prepare for life, and the opposite dictum that those studies which best prepare for life best prepare for college, your Committee would choose the latter.

Finally, the Committee has not presumed to recommend how many units of commercial work should be accepted by colleges for admission. This is a matter with which the individual colleges will have to deal in any case, and some of them will accept more, others less, and others perhaps none at all.

What your Committee has sought to do is, in brief, to define units of work in the various subjects now taught in commercial high schools, such as those of Boston, New

York, Brooklyn, Philadelphia, Washington, and likewise in the commercial courses of the best class of regular high schools, to the end that the schools may know what is expected in the several subjects, and to the end that the colleges may agree on units which they will accept in case they decide to accredit any commercial work for admission.

As a preliminary to the definitions, it may be well to review briefly the official reports and other important papers dealing with the subject.

In 1892 the Conference on History, Civil Government and Political Economy reported to the Committee of Ten as follows: "The subject of Political Economy appears to be taught in only about one-twentieth of the high schools. Here as in Civil Government, we believe that the essential principles are not above the reach of the high school pupils; but that an attempt to master the whole subject will result in the understanding of only a small part. * * * In this difference of opinion, it has seemed to the Conference wise to recommend that there be no formal instruction in Political Economy, but that the general principles be taught in connection, particularly with Economic History, Civil Government and Commercial Geography. The subject would, therefore, appear in its most elementary form in the third year of the Grammar School, and would be revived in the last two years of the high school."

In accordance with this report the Committee of Ten of the National Educational Association (Par. 30) passed the following resolution: "Resolved, That no formal instruction in Political Economy be given in the secondary school, but that in connection particularly with United States History, Civil Government and Commercial Geography, instruction be given in those economical topics, a knowledge of which is essential to the understanding of our economic life and development."

From the foregoing, it would seem at first glance that Commercial Geography was recognized as a proper high school subject, even though Political Economy was deemed inappropriate; but the concluding sentence of the quotation from the report of the Conference seems to indicate that by Commercial Geography they meant grammar school Geography. At that time, therefore, commercial subjects received no recognition in connection with college preparation.

In July, 1899, the Committee of Thirteen of the National Educational Association on College Entrance Requirements, reported as follows (Page 19): "The Committee recommends that our colleges and universities should accept as one unit for admission, a year's work in Economics, including under this head a course in Elementary Political Economy, supplemented by adequate instruction in Commercial Geography and Industrial History."

At the meeting of the National Educational Association in Detroit, July 12, 1901, a resolution was moved in the Department of Business Education to appoint a Committee of Nine with reference to Business Education. This committee undertook investigations, and at the Minneapolis meeting of the National Educational Association in July, 1902, held open meetings for discussion and the receipt of suggestions from all quarters. A preliminary report was presented at that meeting. A second report embodying an outline of a four-year commercial high school course was presented at the Boston meeting of the National Educational Association in July, 1903, and a supplementary or final report accompanied by various appendices was issued under date of September 1, 1903. These several reports and documents are published as Bulletin 213 of the College Department, University of the State of New York, with the subtitle, Commercial Education in High Schools.

In addition to the foregoing, the University of the State of New York issues a syllabus on business subjects for secondary schools, which has proven of considerable value in preparation of the definitions.

Other discussions of the subject which have been consulted somewhat at length are the following:

James: Education of Business Men.

Herrick—Commercial Education (Supplement to Fifth Year Book, National Herbart Society).

Herrick—Meaning and Practice of Commercial Education (MacMillan).

Proceedings of the Convention on Higher Commercial Education (Michigan Political Science Association, June, 1903)

Proceedings of the Conference on Commercial Education (University of Illinois, 1906).

Brown and others—The Place of Vocational Subjects in the High School Curriculum (IV Year Book, Nat. Soc. for the Scientific Study of Education).

Herrick and others—Vocational Studies for College Entrance (Sixth Year Book, Nat. Soc. for Sci. Study of Education, 1907).

Person—Industrial Education, A System of Training for Men Entering upon Trade and Commerce (H. M., 1907).

An examination of the courses of study offered in the classes of schools above named shows that a considerable portion, perhaps 50 to 60 per cent of the work, is similar to that offered in other courses and in other high schools. The remaining portion, which may be properly called commercial, includes the following distinct types of subjects: first, those treating the technique of business, including (1) applied mathematics in the form of business arithmetic and bookkeeping, (2) business language in the form of stenography and typewriting, commercial correspondence, (3)

business law; secondly, courses of a historical, descriptive or theoretical nature, dealing with commerce from the social point of view and including the history of commerce, economic history of England, economic history of the United States, the materials of commerce, commercial geography and elementary economics.

## PHYSICS.

PROFESSOR C. R. MANN, UNIVERSITY OF CHICAGO.

During the year 1907-8 this committee has co-operated with the similar committees of the fifteen other associations in studying the situation in regard to physics. These joint committees have issued one circular and four circular letters. The circular contains a revised statement of the proposed new definition of the unit. This was sent to two thousand principals and physics teachers, and all the suggestions that were submitted have been incorporated in it in the form in which it is presented below.

Having now discussed the matter very thoroughly, not only within the committee itself, but also with the other committees of the fifteen associations from all parts of the country, and having received suggestions and criticisms from over five hundred teachers and principals, your committee feels justified in offering herewith a new definition of the unit. Your committee is aware that this association is co-operating with other associations in appointing a committee to define the unit in physics for the use of the whole country. Because of our careful investigations in this matter we believe that the requirement which this committee will adopt cannot differ materially from the one which we herewith recommend; we therefore urge that these requirements be put into practice as soon as is practicable, in order that the way may be opened for the immediate amelioration of the conditions of physics teaching.

## GERMAN.

PROFESSOR LAWRENCE FOSSLER, UNIVERSITY OF NEBRASKA.

I. The Chairman, in endeavoring to reach the consensus of opinions and judgments touching this subject, directed a communication to each member of his committee, said communication containing (1) a statement of the requirements as formulated at present (really the Report of the Committee of Twelve; (2) a request to examine and criticise said requirements in the light of experience and to suggest such changes and improvements as seemed to be called for; (3) a request for a statement, printed or otherwise, of such modifications or formulations of the requirements, as have been in actual force in the respective states of our territory and under the immediate supervision of each member of the Committee. The responses to the above-mentioned circular are the basis of this Report.

II. (1) We find, generally speaking, that the desire for standardizing the requirements or courses is practically unanimous. Well-nigh all parts of our section of the country are making efforts to reach substantial uniformity and the standard which that implies. Naturally enough, this uniformity can and does extend only to essentials. Conditions vary in different sections, vary some even in communities and schools of the same section. Now, while differences are bound to exist, there is, nevertheless, a well-defined and growing tendency to raise the study of modern languages to a more satisfactory plane. We are convinced that the setting-up of a standard course of study, or formulation of the amount, character and scope of work, which can fairly be asked of students of high school age and advancement, has been and is productive of great good. We believe that the co-operation of the universities or colleges and the secondary schools have materially assisted in rais-

ing modern language study to its proper level. We recognize thoroughly that the work done in the secondary schools must primarily be, in kind and amount, such as is adapted to the needs and circumstances of the school in which it is done, and of intrinsic value to the youth, who may never enter college halls. Preparation for college is only one, a secondary, although an exceedingly important element in high school instruction.

(2) From the information available it appears that the great majority of secondary schools in the North Central region maintain only a two years' German course, though there is a fair sprinkling of schools in which three, occasionally even four, years are given. But, for the present, collegiate work should accommodate itself to this condition. Experience has shown that strong and well-trained high school students, bringing four semesters of German to college, may be permitted to undertake the *fourth* semester's work in college.

(3) The Committee subscribe unhesitatingly to the view that *quality* and not *quantity* should be the aim of instruction and measure of success, that "To work intensively rather than extensively, to stress quality rather than quantity is the salvation of our modern language work." To this end your Committee would urge the need of greater insistence on correct and ready pronunciation, on more thorough drill in, and unwearied application of, the fundamentals of grammar, on greater persistence in the teaching of word formation, and the vocabulary of every-day life; in a word, on a more complete mastery of the fundamental "mechanics" of the foreign idiom. All recognize that to drop, or discontinue, the systematic study of grammar when the student has advanced far enough to begin reading, is not only perilous, but fatal. All recognize the absolute necessity of continuing the study of the *formal* side of language study by

way of simple composition exercises, or—perhaps not so successful a method—by close attention to the forms and the study of paradigms found in connection with the reading matter. Your Committee desires especially to insist upon great attention being paid to the mastery of a systematic and formal grammatical apparatus. Moreover, the student should be led to appreciate the essential unity of structure of German and his native tongue. Through the careful study of German the mysteries of English grammar may well be dispelled and cleared up. Witness *e. g.* the English passive voice, the subjunctive mode, the use of modal auxiliaries, etc.

(4) There is well-nigh absolute unanimity in regarding simple narrative prose, by modern authors, the most suitable material for students in the elementary courses.* Many teachers (and among them some of the most successful, no doubt) strongly urge the necessity of dealing with the *Realien,* rather than the *"Idealien"* of German life. They urge that our high school youth cannot be expected to appreciate fine literary expression or idealistic art, that to arouse and hold the interest of the young we should put into their hands and heads reading and other matter which is not too far above their mental horizon. This view demands that texts descriptive of German customs and life, or of the character of Germany's great men and their deeds be read, rather than fiction or pure literature, no matter how exquisite *per se.* That there is great force to this view cannot be denied, and yet it would be unsafe and unfair to the average student to deny him all opportunity to taste of the fountain of pure literature. For it must never be forgotten that the vast majority of our school youth will never

*Some members of the Committee, however, feel that an exception should be made in favor of *Tell,* particularly in schools which do not maintain longer German courses.

enjoy the benefits which collegiate literary training affords.

(5) In order to realize the best results in reading, the old adage *Eile mit Weile* needs, no doubt, to be observed. Set phrases and the more common idioms should be repeated and digested. Under no circumstances should the teacher tolerate interlinear helps of vocabulary or translation. The constant aim should be to develop *power,* the ability to solve the ever-varying problems arising. Occasional, and even frequent, dictation exercises and the committing of choice bits of poetry may well form a part of every well-regulated secondary school course.

The report of the Committee on Manual Training for Girls was presented by Dean C. M. Woodward, Washington University, St. Louis, Missouri, as follows:

## REPORT OF COMMITTEE ON MANUAL TRAINING FOR GIRLS.

Mr. President, I am aware that my presence here to present a report on this subject will cause a smile, as I have not said much about girls during the preaching that I have gone through.

Mr. Chairman, the committee appointed for manual training two years ago made a preliminary report last year, covering only the two subjects of shop work and drawing for boys. The committee did not then assume that its function extended to a consideration of what the girls should do at the same time and during the corresponding years. But last year this Association instructed that committee to include under the domain of manual training that which would be proper for girls and the personnel of the committee remained unchanged.

No ladies were added to the committee, as would have been appropriate. So we have been obliged not only to use all the wits we had ourselves but to consult very freely with those women who knew better than we did what could be done and how and when. Therefore, the committee have availed themselves of the advice and suggestions from the experience of very competent teachers, and I wish especially to acknowledge the assistance that we have received from the teachers of the Teachers' College of New York, from the teachers of the McKinley High School in St. Louis, and from the teachers of Lewis Institute in this city, who have given us their advice and assistance in blocking out the work.

The committee therefore consider that manual training, as now interpreted and acted upon, covers the broad domain of manual arts: on the boys' side covering shop work and drawing, and on the girls' side sewing and cooking and related subjects. What we have prepared is for the two departments of sewing and cooking, using plain language and not going into fine distinctions of words.

We first considered the fact that in nearly all of our large cities and in many of the smaller ones, pupils of the seventh and eighth grades have received the rudiments of sewing and have been taught the rudiments of plain cooking; they are familiar with the apparatus and with the processes, to a certain extent. And yet there are many high schools in which that is not true—or many cities in which that is not true, and I suppose as this report will go out to a very large number of high schools it is fair to assume that a very large proportion of the pupils will come up without any previous training at all, either at home or at school, in these subjects, and the only way, therefore, is to begin *de novo* in each. What they have is of no harm, and it is like drawing; those who have had draw-

ing and those who have not and who appear to be very much differentiated at the start very soon get together again and the difference disappears. So it will be with the girls.

We have followed this plan. We have as a rule declined to state the article upon which the girl should learn needlework, and in cooking we have declined to state the particular thing that she must learn to make. On the other hand, we have done as in a department in physics and in other things—insisted upon the illustration of important principles, and we have put this statement down, which applies equally to both the sewing and the cooking, namely, that every exercise in sewing and in cooking should illustrate an important principle or process or a simple combination of such principles and processes. In sewing hand and machine work must be insisted upon.

FIRST, PLAIN SEWING, SIX HOURS A WEEK FOR A YEAR. ONE UNIT CREDIT.

Various stitches and their special uses; hand sewing; the use and care of machines and their attachments; the nature and uses of cotton, linen and woolen goods; the use of patterns, and making of simple garments. And that is the story of one year.

SECOND, SEWING AND MILLINERY.

Making of shirtwaists; making of wash dresses and similar garments as those ordinarily used by girls and young women. Then millinery: making, covering and altering hat frames; the study of materials for hats and the planning, making and trimming of sensible hats of appropriate materials, and throughout the teacher should insist upon economy and good taste in dress and in every department of dress. That finishes the second year.

Now we come to the third year. There was in my copy a whole page which I have left out, touching upon the relation of cooking to chemistry. I stated, and I think we ought to insist upon the idea, that a high school which teaches chemistry should not neglect its most important application of the arts of preparing food, and it would be fortunate if the class which begins the study of cooking should simultaneously, if not before, take up the study of chemistry, so that the pupils could be familiar with the processes of the chemical laboratory. They will know what a test tube is and they will know what tests can be made in the test tubes, and they will understand something about chemical action, as the pupils in the grammar grades cannot understand it. My idea is that cooking should be a science ending in a fine art, and that chemistry should come into it. Unless we do that we fail to improve our opportunities and we fail to lift chemistry upon the platform of applied science. It is arbitrary otherwise.

Now, remember that we insist here upon the same idea that every exercise in the kitchen or in household economics of any sort illustrates an important principle or an important typical process.

Cooking six hours a week for one year: Plain cooking; foods, classified and tested for food principles (there are simple methods of testing which are not very elaborately or peculiarly chemical); a study of the effects of heat upon foods alone and in combination (that brings up the whole question of different temperatures for producing different results); experiments with leavening agents and their use shown in actual cooking; bread-making; the theory and practice of canning and preserving fruits, vegetables and meats; planning, cooking and serving meals; waiting on table. Six hours a week for one year.

SECOND YEAR.

The cost of food; market prices; the cost of meals; household accounts; formulæ; dietary; the planning, weighing and cooking of apportioned meals; diet for infants, invalids and convalescents. Sanitation: The location of the site for a home, house planning, heating, lighting and ventilating; water supply; disposal of waste of all kinds; furnishing and decorating. Cleansing processes, including laundry work.

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The discussion was continued by Principal E. W. Coy, Hughes High School, Cincinnati, Ohio; Dean C. M. Woodward, Washington University, St. Louis, Missouri; Principal W. J. S. Bryan, Central High School, St. Louis, Missouri; and Director G. N. Carman, Lewis Institute, Chicago, Illinois.

PRINCIPAL COY:

I should like to inquire whether that six hours means six literal hours or six periods. It seems to me that it would be very difficult indeed to make a program of six hours, as we have usually five days in the week and our periods would not divide into six hours. I do not quite see now how the program would be made unless we have nothing but domestic sciences.

DR. WOODWARD:

The committee lumped the time which should deserve a unit. They agreed upon this: that 240 hours of what could properly be called laboratory work in either cooking or sewing, 240 hours of sixty minutes each, should constitute a unit, or should be given a unit. Schools can arrange that to suit themselves. How that time is divided, how many periods a week, a day, is a matter of no concern

to anybody else. It is left free to the school to put in ten hours if they choose, as they do at Lewis Insitute, or to put in four hours and extend it over a larger period.

PRINCIPAL BRYAN:

I wish it had seemed wise to the committee to state the unit in terms of the ordinary practical unit such as is used in other parts of the reports of committees on units to be given to different subjects. It seems to me that would have two advantages. In the first place, it would fit the programs more conveniently, as has been stated by Mr. Coy, and, in the second place, it would enable us better to apportion the work between manual training in both its forms and the other subjects of the course. It is usually recognized that drawing is essential both to the shop work and the wood work and various form of manual training for boys, and also to that for girls, as would appear especially from the latter part of this report. If the girl is to be acquainted with the decoration of a home, the location of a home, the various arrangements of a home, it is well that she should know what the principles of art are, so that she might apply them. Would it not be possible to say that manual training, with its adjunct drawing, and domestic science with its adjunct drawing, should be given two periods a day throughout the year, and that those together, if need be, should constitute a unit. That would give us in the four years, of course, four units for manual training either for girls or boys. I should like to suggest the advantage of that arrangement and trust the committee will consider it.

DIRECTOR CARMAN:

The question is something like the question of physics which includes laboratory work. The committee I think

felt that it was unwise, as the chairman stated, to indicate precisely how the work should be done, and though I do not wish to cut off discussion, in view of the important matters that are on hand for the afternoon, I am inclined to urge that any discussion of these reports be referred back, if necessary, to the Commission, so that we may take up these matters we have on hand for this afternoon. I move that there be no further discussion of the details of the units presented to the Association, and that they simply be accepted and referred to the Commission.

The motion was carried.

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Report of Commission on Accredited Schools and Colleges:

The first section of the report of the Commission on Accredited Schools and Colleges, consisting of the list of accredited schools for the year 1908-9 and the standards of admission, was presented by Professor A. S. Whitney of the University of Michigan, Chairman of the Board of Inspectors. For report containing list of schools and standards of admission see Appendix.

Professor Whitney reported that the Board of Inspectors, fifteen in number, had met according to their custom two or three days before the meeting of the Commission and had gone carefully over the reports from the various schools, working fearlessly, honestly and untiringly.

The report of the Board of Inspectors was adopted by the Association.

The second section of the report of the Commission was presented by the Secretary, Director G. N. Carman, of the Lewis Institute, who announced that the Commission had adopted new definitions in German, physics, manual training, and commercial subjects, (See Appendix) and had re-

vised the definition of a unit course of study in general, as published in 1902, which read as follows: "A unit course of study is defined as a course covering a school year of not less than thirty-five weeks, with four or five periods of at least forty-five minutes each per week," so as to read: "A unit course of study is defined as a course covering a school year of not less than thirty-six weeks with five periods of at least forty-five minutes each per week."

It was moved and seconded that the report of the Commission on definitions of units be adopted.

In discussing the question Miss Ellen C. Sabin (Milwaukee Downer College), objected to requiring five periods a week for every subject of study, in that it leaves a school no opportunity for freedom and initiative. Objection was also made to the forty-five minute period, as thirty minutes of intense interest is all that children from fourteen to eighteen should be subjected to.

Superintendent W. H. Elson (Cleveland, Ohio), asked for a statement from the Commission which would indicate its particular reasons for proposing this distinct change of enlarging the standard school year.

President James H. Baker (University of Colorado), said that one of the great standardizing boards of this country had felt obliged, when there was an alternative of four or five periods per week, to make their reckoning upon the smaller requirement, and this reduced fifteen units on the four-period basis to twelve units on the five-period basis. Moreover, the American Medical Association defines a point, or half unit, as five periods a week for eighteen weeks.

Professor H. A. Hollister (University of Illinois), called attention to the fact that the Board of Inspectors accepts schools in which the recitation period is forty minutes in the clear, additional time being allowed for change of classes.

Principal E. W. Coy (Cincinnati), entered a protest against adding to the work the secondary school has to do to-day. He was convinced that better work could be done if less were required.

Professor C. A Waldo (Purdue University), urged that a thirty-minute period for a class of twelve or fifteen may be more satisfactory than a forty-five minute period for a class of thirty

Superintendent J.W. Carr (Dayton, Ohio), asked if the change of definition proposed was made to meet the requirements of the Carnegie Foundation, in order that college professors may be eligible to the pension fund.

Professor A. S. Whitney (University of Michigan), said that the Board of Inspectors recognizes thirty as the maximum number of students per teacher and that many schools have been rejected because they exceeded that number. He also reminded the Association of the fact that the majority of our schools run ten months and that the definition adopted by the Commission calls for an equivalent of five forty-five minute periods a week for thirty-six weeks, which is not in excess of what most schools are now offering.

President J. R. Kirk (State Normal School, Missouri), believed that outside of the large cities and a few favored localities, the high schools were trying to conform to college and university requirements and were dissipating their energy over a large number of subjects, when, if they were left alone they would teach a smaller number of subjects much better, and their graduates would go to the colleges with not quite so many units but with a good deal more scholarship and ability to think for themselves. He moved that the definition of a unit be amended to restore the four or five recitations instead of five as originally read and the

number of minutes to forty minutes in the clear. The motion was seconded.

The question was discussed further by President Samuel Plantz (Lawrence University, Appleton, Wisconsin), Professor H. A. Hollister, Director G. N. Carman, and State Superintendent C. P. Cary, of Wisconsin.

Dean E. A. Birge, of the University of Wisconsin, moved that the question be referred to a committee of ten appointed by the President, consisting of representatives of the colleges and secondary schools here present to consider the matter and report to the Association to-morrow morning, the committee to consist of five from the Commission and five additional.

The motion was seconded and carried.

President James appointed as the committee of ten to consider the definition of the unit: Director Carman (Chairman), President MacLean, President Baker, Inspector Whitney, Inspector Hollister, President Kirk, Superintendent Carr, Superintendent Cary, Principal Coy, and Superintendent Nightingale.

The third section of the report of the Commission was presented by the Chairman, President George E. MacLean, of Iowa State University. Attention was first called to the preliminary report of the Committee for Inspecting and Accrediting Colleges, which reads as follows:

By action of the Association, March 23, 1906, the name of the Commission on Accredited Schools was changed to the Commission on Accredited Schools and Colleges. (Proceedings of 1906, page 130.) The Commission at the same time was instructed to report at the next annual meeting of the Association on the advisability of adopting a plan for the inspection of colleges and universities and the standardizing of their work. The Commission accordingly appointed a committee consisting of the Chairman, Vice-Chairman,

and Secretary, to prepare and present to the Commission a plan for inspecting and accrediting colleges. No report was made last year, and the members of the Committee are not now ready to recommend the adoption of the report in the present form. It is submitted in a shape designed to lead to the discussion of the main features involved in the inspection of colleges.

REPORT.

I. That the Commission undertake the work of inspecting and accrediting colleges and universities through the Board of Inspectors, such changes being made in the constitution of the Board as may seem advisable in view of the proposed extension of its work.

II. That the following constitute the standards of admission to the accredited list of the North Central Association of Colleges and Secondary Schools.

A. For Colleges and Schools. (Schools, as used in this section, includes colleges and universities).

1. That the minimum scholastic attainment of all instructors shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools, including special training in the subjects they teach, although such requirements shall not be construed as retroactive.

2. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught as outlined by the Association.

3. The location and construction of buildings, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

4. The efficiency of instruction, the acquired habits of

thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.

5. Wherever there is reasonable doubt concerning the efficiency of a school, the Association will accept that doubt as ground sufficient to justify rejection.

6. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the inspector.

7. All schools whose records show an abnormal number of pupils per teacher, as based on average number belonging, even though they may technically meet all requirements, are rejected. The Association recognizes thirty as a maximum.

8. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the Association.

9. The organ of communication between accredited schools and the Secretary of the Commission for the purpose of distributing, collecting, and filing the annual reports of such schools and for such other purpose as the Association may direct, is as follows:

a. In states having such an official, the Inspector of Schools appointed by the state university.

b. In other states the Inspector of Schools appointed by the state authority, or, if there is no such official, such person or persons as the Secretary of the Commission may select.

B. For Colleges and Universities.

The Association will decline to consider any college or university:

1. Which has an income, exclusive of tuition, of less than ten thousand dollars a year.

2. Which has fewer than seven distinct departments, organized with separate heads.

3. Which requires for admission less than fifteen secondary school units as defined by the Association.

4. Which requires less than twelve college units, or sixty year-hours, for graduation.

C. For Secondary Schools.

The Association will decline to consider any secondary school:

1. Which has fewer than four teachers, exclusive of the Superintendent.

2. Which requires of any one teacher more than five periods of class-room instruction, each to extend over at least forty minutes in the clear.

3. Which requires for graduation less than fifteen units of secondary school work as defined by the Association.

III. That amendments be made as follows:

1. To the act establishing the Commission on Accredited Schools Sec. (2). That the clause "to define and describe unit courses of study in the various subjects of the high school program" be changed to read "to define and describe unit courses of study in the various subjects of the high school and college program," and the clause "to prepare a list of high schools within the territory of this Association which are entitled to the accredited relationship" be changed to read "to prepare a list of high schools colleges and universities within the territory of this Association that are entitled to membership in the Association."

2. To the Constitution of the Association.

Article III. Change Section 7 to Section 8 and insert as Section 7:

No college or university shall be eligible to membership

which has fewer than seven professors giving their entire time to college and university work, and which requires for graduation less than twelve units or 60 year-hours of college work as defined by the Commission on Accredited Schools and Colleges.

A technical school to be eligible must have entrance and graduation requirements equivalent to those of the college, and must offer courses in pure and applied science of equivalent grade.

To be ranked as a college an institution must have a productive endowment of not less than two hundred thousand dollars.

IV. That the following be adopted as an annual report blank for colleges and universities:

ANNUAL REPORT FOR COLLEGES AND UNIVERSITIES.

Date.....

Name of Institution .....
Address .....
Control (religious or non-sectarian) .....
Educational organization of institution into schools or departments .....
What proportion of work, if any, belongs to secondary school? .....

COLLEGE OR UNIVERSITY STATISTICS.

Number of teachers in each grade of instructing staff—
Professors .....——Men——Women
Associate or acting professors .....——Men——Women
Assistant professors .....——Men——Women
Instructors .....——Men——Women
Assistants .....——Men——Women

Number of students in each collegiate department—
Undergraduate .....——Men——Women
Graduate .....——Men——Women
Professional .....——Men——Women

Value of Plant Used for Instruction—
Grounds ..... $———
Buildings ..... $———
Equipment ..... $———

Number and kind of degrees conferred at last commencement .....
Value of Dormitories and Residences .....$———
Amount of Outstanding Debt, if any.....$———
Amount of Productive Endowment and Income therefrom ..... ....$———
Amount of Appropriation from State or Denomination ..... .....$———
Annual Income from Tuition .....$———
Amount of Total Annual Income Devoted to Paying Salaries of Teaching Force.....$———
What are Principal Items of Annual Expense, besides pay of Teachers and Assistants....$———

President MacLean also submitted the following:

PROPOSED AMENDMENTS TO THE COMMITTEE'S REPORT FOR INSPECTING AND ACCREDITING COLLEGES.

In I. Strike out "through the Board of Inspectors, etc.," and substitute:

"There shall be two visitors in each State through whom the inspection of Colleges shall be done. One of the inspectors shall be the High School inspector from the state and the other a president or dean of an institution in this Association from outside the state to be appointed by the Commission. The inspector shall be the organ of communication between the college and the commission."

In II. A. amend to read:

For secondary schools. Strike out "schools as used in this section, etc."

In II. A. 9. Add after inspector, "Unless the standard of the School shall warrant the omission of the report for any given year."

In II. A. 11. Add after Association "except as provided in 9."

For II. B. and C. read: B For Colleges and Universities.

1. The minimum scholastic requirement of all instructors shall be equivalent to graduation from a college belonging to this Association, and graduate work equal at least to that required for a Master's degree, it being understood that a Ph. D. is the ideal and that a fair proportion of the instructors have the latter degree.

2. The number of class hours for the professors shall not average to exceed fifteen hours a week, and the same average shall apply to students, with rare exceptions.

3. The proportion of instructors to students shall be taken into account.

4. The average salary of the heads of departments, exclusive of the salary of the President, shall be at least $1,400.

5. The College shall maintain at least ten separate departments or chairs. The heads of these departments shall be devoted to College work.

6. The College shall require for admission not less than fifteen secondary units, as defined by this Association.

7. The College shall require not less than 12 College units, or sixty year-hours for graduation, or 120 semester units.

8. The College must be able to prepare its graduates to enter without conditions as candidates for advanced degrees reputable graduate colleges.

9. The character of the curriculum, the efficiency of instruction, the scientific spirit, the standard for regular degrees, the conservatism in granting honorary degrees, the tone of the institution shall be chief factors in determining its eligibility.

10. The College shall have a permanent endowment of not less than $350,000, or a fixed assured income, exclusive of tuition equivalent to the interest derived from at least $350,000 at 5 per cent.

11. The library shall consist of at least 10,000 volumes selected with reference to College subjects and exclusive of public documents.

12. The laboratory equipment shall be worth not less than $5,000 and so distributed as to establish at least an efficient chemical, physical, botanical, and zoological laboratory.

13. No institution shall be considered for membership or retain membership, unless a regular blank has been filed with the Commission, and is filed triennially unless the inspectors have waived the presentation of the triennial blank.

14. The local inspector shall be the organ of communication between the College and the Commission.

President MacLean then spoke as follows:

President James's address this morning was providential, a magnificent pathfinder for this report, and makes unnecessary certain explanations by way of introduction to the report. The President's address makes clear that the standardizing of colleges is going on apace and that if we educators do not immediately undertake our share of the work we shall have little or no share in it. The work has already come to issue even in the statutes of certain states, and the work is carried on by professional associations not

as well equipped pedagogically or educationally for doing it as are associations like this. The President's report further made clear that this Association has been a pathfinder in the matter of standardizing. The movement that this report presents to-day is five years old in this Association. It goes back to reports gathered by a committee of which President Thwing was chairman, concerning the standards for an A. B. degree. If you will look into the proceedings of this Association for 1905 you will find all the elements that are essential in this report of to-day. Data were there gathered, and two years ago the Association, in view of the data that had been gathered and in view of a paper presented by Mr. Carman and a paper presented by Mr. Coffeen of Iowa, a secondary school man, instructed this Commission to present a plan for inspecting and accrediting colleges. Your Commission has been so cautious that we have been two years in turning over this subject, and to-day I wish you please to notice that we come before you in a tentative and cautious spirit, as this preface shows.

The members of the committee are not now ready to recommend the adoption of the report in the present form. It is submitted in a shape designed to lead to the discussion of the main features involved in the inspection of colleges.

In taking up the report please remember that it proceeds from the Commission and that the Commission represents equally secondary school men and college men; that the Commission represents not state university or private college but every institution simply on the democratic basis of membership in this Association. Therefore it comes without suspicion of representing either this or that element, secondary school or college, private or public institution, and it comes, in candor, pushed upon us by great national educational movements.

Let us then take up the report and observe, first, "the Commission shall undertake the work of inspecting and accrediting colleges and universities." That has been determined by previous action and of course our report expects that to stand. Then second, in paragraph I. we proceed to say "through the Board of Inspectors, such changes being made in the constitution of the board as may seem advisable in view of the proposed extension of its work." Here is problem number one. I think we will all agree that it should be done through the machinery that has operated so well, but with a readjustment of the machinery to take up the problem of accrediting a different kind of institution. Various suggestions have been made as to how the machinery shall be readjusted. First, it has been suggested that it be the Board of Inspectors, just as it is. These inspectors have experience. They know the feeling. They have the sympathy of the secondary school men and are often talked of as secondary school men from their close companionship with them. They know the trials of the secondary school men, and are their representatives. But the college men at first thought would say, We want college men. It may be replied that the present inspectors are to a man college-bred men; they are in a high sense college men. Secondly, the genius of this Association is to knit together colleges and secondary schools, and therefore these men would have particular significance if they inspect both classes of institutions. They would promote unity, and so there is a group who would have the present Board of Inspectors, just as they are, proceed with this business. There are, however, two sides to the question. The inspectors we happen to know do not seek this job. On the contrary, they are prepared, I fancy, except as you may lay hands on them and put it as a duty to them, to refuse the task.

A second possibility was suggested by one, not a state university man, that the inspection should be by three—appointed by the Commission, namely—the local or state inspector of schools, the State Superintendent of Public Instruction and the President of the State University.

Another suggestion has been made that the inspection should be undertaken by those non-resident in a given state, in order to escape the influences and embarrassments of locality, as judges sometimes change their circuits.

The first amendment proposed on the printed slip is an alternative or something more definite than what is proposed in the report:

"There shall be two visitors in each state through whom the inspection of colleges shall be made. One of the inspectors shall be the high school inspector from the state and the other a president or dean of an institution in this Association from outside the state, to be appointed by the Commission."

There is an economic law that demands that the inspectors shall be as few as possible. The local inspector's expenses are borne. If some one is to come in from outside the state it would be quite sufficient as a financial burden to bear the actual expenses of one man. It is proposed that the one man who comes from outside the state shall be, if you please, more than a professor, more than a mere college graduate; he shall be a man of executive experience, and so a president or dean of any institution in this body named by the Commission. Of course it is clear that your Commission, before proceeding in this delicate matter, would confer with the parties concerned, and there would be an adjustment with reference to both expense and persons that would give efficiency and agreeableness.

Then I may say that if you can agree, first, that what was once proposed by the Association stands and goes for-

ward, that there shall be without delay the inspecting and accrediting of colleges and universities, and, secondly, that your present machinery, with this slight readjustment to meet the conditions, shall do it, you have to-day made it possible for us to proceed. So much the committee trusts you will see your way clear in some form to agree upon.

We come now to what would be the pointers, the general principles, the directions, the criteria, the objective standards, whatever you want to call them, that we are to make use of. It is possible to have more or less of these things set out in greater or less detail. These things can be worked out as you go forward, but there are two sets of pointers before you. On the original preliminary report under A on the first page the present requirements of this Association for accrediting are simply reprinted and extended to apply to the colleges. There is nothing new under A, practically, but the extension to the colleges and universities. And then, inasmuch as the different character of the colleges and universities requires something special, on the top of the second page, under B, there are supplementary points for colleges and universities, four of them. That was the most conservative possible way to indicate the character of criteria with which we would begin this work and let it grow upon our hands. You see the natural objections. Immediately some will say, "There are such essential differences between secondary schools and colleges and universities that it is unwise to adopt by the wholesale these directions that we had for accrediting secondary schools." And some of the directions, as you see, would be somewhat wide of the mark. Therefore the alternative is presented upon your printed slips. Look at B. I am passing over a couple of insignificant amendments to your present regulations that are purely incidental and not of any importance in our report to-day. We go at once, then, to

B, and you will please take B on the slip, with the fourteen points, as a substitute for all that is under A on the original report, leaving what is under A just as it is to apply to the schools, and a substitute also for the four points under B on the second page. These fourteen points would follow the spirit of the points, as far as they are cognate, that you have for schools.

"1. The minimum scholastic requirement of all instructors shall be equivalent to graduation from a college belonging to this Association, and graduate work equal at least to that required for a Master's degree, it being understood that a Ph. D. is the ideal and that a fair proportion of the instructors have the latter degree."

Briefly to analyze, we begin with the teachers. The word instructor is used generically, including professors of all grades and full instructors; it does not include the assistant instructors or the many assistants that are in a college. Otherwise you perceive at once that a small college would be hugely embarrassed, taking, as they often do, some one who has recently graduated or sometimes some one who is experienced as a teacher from the senior students.

A MEMBER: Are we, then, to read professor instead of instructor?

PRESIDENT MACLEAN: It has been suggested by some of the college men that it would greatly relieve the situation if it were amended to read "The minimum scholastic requirement of all professors shall be, etc." They would not consider it too idealistic with the word professor substituted for instructor. But please make it clear that we did not mean by instructor to include all kinds of assistants, but to use it technically from instructor up through professor.

Then, secondly, it would be well to notice that a Master's degree is not required. Some of us are certainly young enough with the spirit of freedom and some of us are old enough with the spirit of experience not to come here with Procrustean technical or paper things, and we use the word equivalent here. We are not putting as much weight on a sheepskin as a casual objector might at first think—"graduate work equal at least to that required for a Master's degree." Then the third point is that we are not Ph. D. fiends. We hold it up as an ideal that a fair proportion of the instructors have the degree; and of course it is understood that this is not retroactive. We did not put that on, because the law and gospel both teach that. So I hope that if you have a first impression that there is undue stiffness or idealization here, you will see that we have made it just as reasonable and progressive as possible.

"2. The number of class hours for the professors shall not average to exceed fifteen hours a week, and the same average shall apply to students, with rare exception."

I think that needs no explanation.

"3. The proportion of instructors to students shall be taken into account."

"Some will ask with a cynical smile, "Does that mean anything? Why not state the proportion?" Because we are growing here, because this Association has done so much by pointing in a certain direction and then going forward and later becoming specific. But we put out the principle, and we will soon find as our inspectors get to work that the colleges have approximated what is a practicable, reasonable proportion; but not to enunciate the principle since there are schools in our region who have not thought of these things would be to stultify ourselves.

"4. The average salary of the heads of departments, ex-

clusive of the salary of the president, shall be at least $1,400."

Please remark that we have had in mind, or attempted to have in mind, the smallest, tenderest, true college. Those we are here to nourish. But quackery colleges, commercial diploma mills, in fact, we must discredit. So this says "average salary of the heads of departments," every word a limitation. We may have in a small college a given professor at $1,000, we may have another at $1,700, another at $1,800. The application is only to the heads of departments. You strike thus an average of $1,400. Secondary school men say, "Well, this is degrading. We average more than $1,400." We thank the Lord you do; but in the colleges, where there has been so much of the spirit of consecration, it is true that the average is low. We submit all these pecuniary statements with great modesty and are quite ready to hear argument.

THE CHAIR: Mr. President, we will have to hasten a little on this. Our time is getting on.

PRESIDENT MACLEAN: I will not read the rest. I think you can all read. I will answer any questions on the rest of the report.

DEAN BIRGE: May I ask one question, Mr. President? Is this system of inspecting and accrediting intended to apply primarily to the colleges that are now members of the Association or is it intended to apply to those who are not members and may apply for membership, or to those who are outside and do not apply for membership, or to all?

PRESIDENT MACLEAN: First, it applies only to colleges that seek the inspection, just as in high schools the inspection is had by invitation. It may apply, therefore, within

or without where the inspection is invited. Institutions are members of this body that do not bear an accredited relation at this time and may continue so.

SUPERINTENDENT CARY: Mr. Chairman, may I ask a question? Is there anything this committee can do on the side to determine who can teach and who cannot, in addition to determining whether he has the degree of A. M. or Ph. D.?

PRESIDENT MACLEAN: The question is most timely, and we had that in mind, as you will observe by looking at point 9. "The character of the curriculum, the efficiency of instruction, the scientific spirit," and so forth, and point 9 is more important, as that is a spiritual point, than all your other points put together.

PRESIDENT HILL M. BELL (Drake University): Mr. Chairman, I would like to say No. 3 is pretty good phraseology to apply to both 4 and 10. It seems to me that would come nearer making it possible to recognize those institutions that deserve it and would give more latitude and freedom in the consideration than fixing definite figures.

PRESIDENT MACLEAN: The chairman will say that the suggestion seems to him an admirable one, and it may be explained that the doctrine of proportion was applied in stating figures here. There is, of course, scarcely anything original in these objective standards. We have had before us the objective standards that have been sent out by the State of New York, the State of Pennsylvania, the Carnegie Foundation, the Williamstown conference (that is your own national conference committee), the Iowa State Board of Educational Examiners and the proposed scale of the Collegiate Alumnæ Association. As is well known, $200,000

has been set out, for example, as the endowment fund by the State of Iowa, by the Carnegie Foundation, and if that was to apply to a college of six distinct departments, if you had ten distinct departments $350,000 would be a proportional figure. With reference to salaries the thing is not so clear there, but the college so small that it had but six or seven professors would be likely to have the lowest salaries also and perhaps might have some latitude.

PRESIDENT KIRK: Mr. Chairman, may I ask another question, please? I notice in section 10 of your list you say, "The college shall have a permanent endowment of not less than $350,000." Now I understood the chairman to report in connection with another section of this that this report was not meant to be retroactive. There are several colleges members of this Association now whose interest-bearing endowment is not much above $100,000. Are we to understand that the committee wishes to say that this shall not be retroactive and affect those colleges, but that from now on and for all time, so far as those colleges now in this Association are concerned, even though it may be forty years before they have the $350,000 endowment, they may remain members of this Association?

PRESIDENT MACLEAN: It would be for this Association to say when this should go into effect. It would not be retroactive, that is clear. It might not bear upon those already members of this Association. The chairman would infer it would be put into operation with reference to new accredited colleges, but it would be for the Association to say how to apply this.

PRESIDENT CHARLES E. SHELTON (Simpson College, Iowa): I would like to ask if that is intended to apply

to those institutions that do not have any fixed and definite endowment, but depend upon appropriations from legislatures and other bodies entirely for their support?

PRESIDENT MACLEAN: It is so drawn as to take care of either a state or a private institution, "a fixed assured income." So far as I know, every state institution has in fact either a millage tax or a permanent appropriation. There is nothing surer than taxes, except death.

PRESIDENT KIRK: But, Mr. Chairman, there are state institutions that simply receive their support and they have no appropriation for more than two years in advance.

PRESIDENT MACLEAN: The only answer would be that in a fixed legal way you could not say they had an assured income, but as the American people are a moral people and when they have brought forth a child they support it, both history and moral obligation assure this as fixed, better fixed, than statute.

PRESIDENT SHELTON: Are we to take into consideration consecration as well as taxation?

PRESIDENT MACLEAN: We have. If not, we should put in a minimum wage of not less than $2,000.

PRESIDENT SHELTON: For instance, a school that has a denomination of 100,000 in a state, that denomination guaranteeing its support and its care and rising to every emergency, are we justified in saying that the Commission means under such circumstances, as well as the state university, that those people are supposed to be rational in their consecration as well as taxation?

PRESIDENT MACLEAN: Exactly. That is why it says a fixed, assured income as an equivalent for an endowment.

PROFESSOR C. A. WALDO (Purdue University): As I understand the situation, this accrediting committee may act upon colleges and universities that are not already members of this Association and also upon such colleges and also upon such universities as shall invite it to act. Now there undoubtedly is a residuum there, a pretty large one, that will not invite this committee to act. May I ask how you are going to standardize that residuum?

PRESIDENT MACLEAN: Just as we have done with the high schools. There have been and still are magnificent high schools that have not bowed the knee to this Association. This Association is nothing but a voluntary association, lifting up standards, and those standards are open before the eyes of all men, and those who wish to adhere can get fair judgment and adherence, and those who do not wish to we bless in the name of the Lord.

PROFESSOR WALTER LIBBY (Northwestern): I would like to ask the chairman whether there has been any thought of having the secondary school men represented on this examining body? If I understand the minds of some of the high school men whom I have an opportunity of visiting, they would like this visitation to be a sort of mutual thing, not merely that the university men should go out to see them occasionally, but also that they should come to see us. They want to know what will become of their graduates and whether their graduates are going to proper institutions or whether they are going to fake institutions, whether these graduates pass out of the hands of expert men in the high school to go into the hands of inexpert young fledg-

lings, perhaps with Ph. D., who have become attached to the university. Wouldn't it be a feasible thing to have men from our great secondary schools go to these smaller institutions as well as to the larger ones, where they will always be welcome, to see for themselves that they are not marked by charlatanry and quackery, as some of them are inclined to suspect, and whether in all the institutions the same care is exercised over the studies and character of the freshman class as has been set forth in the paper by Dean Clark this afternoon?

PRESIDENT MACLEAN: The remarks seem to me most timely, and our thought was that the secondary school men are on this Commission, as many of them as college men on the Commission. This work is really done by your Commission. Of course you immediately reply, "But you have provided the inspectors." They have been named often secondary school men. They know the spirit of these secondary school men. They live, move and have their being with them, and the thought was that the present inspectors would know what those secondary school men would like to have looked into in the colleges, and that the second man, the president or dean, would placate anybody who might be suspicious from the college point of view. Of course, it would be possible to amend here—there is nothing but the economic law in the way—and have a secondary school man, or you might say president, dean or principal or superintendent, for that man from the outside.

PROFESSOR LIBBY: I admire your ingenuity, Mr. President, and the way you put it.

PRESIDENT MACLEAN: These points we have thought of ourselves.

PROFESSOR LIBBY: I am trying to prove that I am what you claim I am, a secondary school man as well as a university man. I believe some of us have that character, but I do not know but what our extra university experience might very well be supplemented by some co-operation from secondary school men of a high standard.

PRESIDENT MACLEAN: How would it be if this commission of two should use a liberty to invite from the neighborhood a prominent superintendent or principal, high school man, to go with them? The matter of expense is the matter that holds us down, you see, in making a large body.

PROFESSOR LIBBY: The expense of a secondary school man would be no more than that of an imported dean or a president; less, I imagine.

PRESIDENT KIRK: Mr. Chairman of the Committee, I notice in section 2, in the upper part of the report, that one of the inspectors shall be the high school inspector from the state. Some states have several high school inspectors, a high school inspector from each university and a state high school inspector that is not connected at all with any institution. I suppose you mean by this that in a state which has a state high school inspector independent of all institutions he would be the one through whom this business would be done?

PRESIDENT MACLEAN: Unless otherwise designated by the Commission. If you will turn to the organization of the Commission you will find that it is provided that the Commission may designate where there is more than one inspector or where there is no inspector. This is all to run under the law as now established. Of course, that might be made definite in the report.

PRESIDENT KIRK: In your first report, your preliminary report, under 12, you say: "A. In states having such an official, the inspector of schools appointed by the State University, but in other states," that is, in states not having a university inspector, I assume, "the inspector appointed by the state authority"; but in your amendment here you simply say: "One of the inspectors shall be the high school inspector from the state." There are some states who have a high school inspector not provided for by law, no statute providing for him; he is just an appointee of the university, while some of the states have by law provided for a high school inspector and a state elementary school inspector. Then further it is said the inspections of this inspector shall be received at certain state institutions. Your explanation, it seems to me, does not clear that up. And then down here at the bottom you say, "The local inspector shall be the organ of communication between the college and the Commission." I do not understand what individual you mean to designate as the local inspector.

PRESIDENT MACLEAN: The local inspector would be "the" inspector referred to in section 12. The inspector was supposed to be under the spirit of our present statute which you read, point A, which would be the state inspector where there is one, and where there is not, one to be designated by the Commission.

A MEMBER: Then the state inspector would mean the one appointed by the state and not by the university?

PRESIDENT MACLEAN: If that is the relation in that state. It is just your present scheme with reference to inspectors.

PRESIDENT KIRK: I beg your pardon for asking so

many questions, but I am unable to understand whether the chairman is making a report which, in behalf of his committee, he recommends for adoption, or whether he is securing our criticisms with a view eventually to having a report written out.

PRESIDENT MACLEAN: The answer, I think, is in what we have at the beginning: "We are not now ready to recommend the adoption of the report in the present form. It is submitted with an especial design to lead to the discussion of the main features involved in the inspection of colleges."

PRESIDENT C. H. RAMMELKAMP (Illinois College): Since questions and criticisms are apparently what are invited by the chairman of the committee, I should like to make a few suggestions and possibly criticisms.

It seems to me that when one is attempting to mark out the way, as the chairman says, it is somewhat dangerous to be altogether specific and detailed and to bring in points about which there may be considerable doubt. For example, we have here fourteen different requirements. That at once, I think, raises the question whether too many detailed regulations and specifications are not inserted. Usually in attempting to get together on some proposition we lay down three or four or five fundamental questions and try to agree on them. For example, it seems to me to be rather unnecessary to have both requirement 10 as to the amount of endowment and also requirement 4 as to the amount of salary. I think the two will usually go together, and that an institution with a certain amount of endowment will naturally pay a certain average salary. It seems to me from that point of view there might be very well a revision of some of these recommendations of the committee.

I get the impression from the report, the preliminary report that is before us, that these recommendations involve a rather higher standard than that set up by the Carnegie Foundation. The recommendations here involve a larger endowment, as I recall now. The Carnegie Foundation requires $200,000.

PRESIDENT MACLEAN: Two hundred thousand dollars, but you will recall the $200,000 is for six chairs.

PRESIDENT RAMMELKAMP: It is an increase both of endowment and the number of instructors. I think that the trustees of the Carnegie Foundation felt that in setting the standard up they have set up somewhat of an ideal. Now our committee apparently is trying to set up a higher ideal, at least from those two points of view, than that set up by the trustees of the Carnegie Foundation. It would seem to me, therefore, that that would be a point that would have to be pretty carefully considered. Possibly since the Carnegie Foundation had in view Southern institutions, which in general, it is admitted, are not up to the standards of these Northern institutions, the committee is justified in this higher standard, but I should think it would require careful looking into. It is a higher standard that you are maintaining or attempting to recommend here, is it not?

PRESIDENT MACLEAN: It is. The Carnegie Foundation, as everyone knows, on account of their desire to help Southern institutions, set the low standard, which they hope steadily to raise, and this is on the same proportion relatively—ten, $350,000.

Let us get out on to the table, so far as the President will allow us time, anything else that will help this report.

PROFESSOR WALDO: I am not clear with reference to

the interaction of Nos. 1 and 9, as they have been explained; that is, as to what amount of importance the committee attaches to certain kinds of preparation for college work. The chairman of the committee has said that the ideal is that a college instructor shall have a Ph. D. degree, and then he afterwards assented that efficiency of instruction is paramount. Now suppose that two men are under consideration for instructors in a college—I put it instructors, young men coming to take care of certain parts of the lower grade work—and one of them is a Ph. D. and is not a good teacher, the other is not a Ph. D. and is a good teacher, which does the committee recommend?

PRESIDENT MACLEAN: I know what I would recommend as a president. I know what you would recommend. I know what Dean West over there would recommend. We would like some good teachers in the colleges and the secondary school men would like us to have more good teachers in the colleges.

PROFESSOR WALDO: I thought that point had been left somewhat uncertain.

PRESIDENT MACLEAN: These are simply pointers to be inter-related by judicious administration.

DEAN BIRGE: There is one other question I would like to ask. Do you intend to bring technical schools in with the colleges? I notice in the report it seems to intend to bring in the technical schools.

PRESIDENT MACLEAN: We have proposed no amendment to what is under C for secondary schools except verbal amendments to make perfect, and also to add a footnote.

DEAN BIRGE: B, the amendment to article 3, technical schools to be eligible—equal to college, and so on.

PRESIDENT MACLEAN: Yes, that is part of the report.

DEAN BIRGE: I would ask the relation to that of the requirement of students for more than fifteen hours per week, as given in point 3 of your proposed amendments. I think that engineering schools ordinarily require more than fifteen hours a week.

PRESIDENT MACLEAN: It was supposed that the equation that has ordinarily operated, Dean Birge, would prevail. That is a detail that might well be set out, but, as has been remarked, we have gone a good deal into detail to begin with, perhaps too much. But the usual equation in adjusting the relation between colleges of liberal arts and applied science is supposed to work.

A MEMBER: In paragraph 2 of the introduction, did I understand you to say that in the appointment of a man from outside the state to take place on the examining board a conference would be held with the colleges to be examined?

PRESIDENT MACLEAN: Well, perhaps I virtually did say that. I suspect I did say just that thing. What I meant was that this Commission when it begins to function will look over these fields and will study what is just, intelligent and agreeable for the communities.

THE MEMBER: Would it be objectionable to insert some such provision as that?

PRESIDENT MACLEAN: No objection at all, sir, only we are trying not to get too much in the way of detail and

to suppose that the same confidence that has prevailed in our Commission heretofore—and I think perhaps they have deserved it—will prevail.

THE MEMBER: One or two other questions of minor importance. Under 2 you say that the instructor shall not average to exceed fifteen hours a week. In the case of the division of a freshman class into sections and a teacher had two or three sections, is that to limit his class work to work with the freshman class is case he taught three sections a day?

PRESIDENT MACLEAN: You notice there is that blessed word "average." It is the sphere of mathematics to take you into the infinite. As you are aware, I don't know much about mathematics; it is always infinite to me. It is not to average to exceed fifteen hours. That might include an instructor at a certain kind of work that would have twenty hours, and here is a professor with nine or ten hours.

MR. RIGG: Let me call attention to another point: Instructors is not the word used, but professors, fifteen hours a week.

A MEMBER: "The college shall maintain at least ten separate departments or chairs." One statement that was made led me to infer that that meant professors; is that right?

PRESIDENT MACLEAN: Yes, if I understand you. Put your question, and then I want to make a remark.

THE MEMBER: That is my question.

PRESIDENT MACLEAN: This is the twentieth century standard, to be honest in educating our boys and girls in

a college. Can we, except as there are very peculiar circumstances, honestly educate collegiately a boy or girl today without ten heads of departments or ten chairs? Now let us see: We ought to have a professor of English—we will begin with the mother tongue. 1. We ought to have at least one professor for modern languages, French, German, Spanish are called for now. 2. We ought to have at least one professor for Greek and Latin. 3. We ought to have at least one professor for mathematics. 4. He can have astronomy, too, or something else, if you want to. There will be great liberty here.

THE MEMBER: That is my point exactly.

PRESIDENT MACLEAN: You may make such combinations as you please if you have ten chairs.

THE MEMBER: When a man can teach pure mathematics and astronomy, is that one department or two?

PRESIDENT MACLEAN: That is one department. We have four—

THE MEMBER: My question is answered. Thank you.

PRESIDENT MACLEAN: You would not dare have less than three physical sciences; 3 and 4 make 7. Where is the college that knows any prestige as a college that does not have a chair of philosophy? 8. Where is the college that would dare to have less than one chair in history, all the field of history? 9. Where is the college that would dare have less than one chair in the economic, the political, the social sciences? Would you send your boy to a college where there were less than ten masters of that sort? Now let us be honest with the boys and girls. We are talking about a college.

THE MEMBER: I do not want to be put down as anti this. I am simply asking for information. I believe very cordially in just what you say.

SUPERINTENDENT A. F. NIGHTINGALE: Mr. President, the hour is getting very late, people are passing out. It seems to me we ought to accomplish something along this line, and I would like to move that the report be recommitted with suggestions from this Association, and that we spend the next ten minutes in presenting these suggestions, one after another, to be recorded for the committee.

The motion was seconded.

THE CHAIR: Is this satisfactory to the chairman of the Commission?

PRESIDENT MACLEAN: Entirely so.

The motion was carried.

In accordance with the motion additional suggestions were offered by members of the Association.

## THIRD SESSION, SATURDAY MORNING, MARCH 28.

The Association was called to order by the President at 10 o'clock a. m.

The Secretary of the Executive Committee presented his report, as follows:

DEAN THOMAS ARKLE CLARK: There was presented to the Association at its last meeting the following amendments to the constitution, which having been on the table for one year now are before us for final action.

First, that Article 3, section 3, be stricken out. This article reads as follows:

"In the membership of the Association the representation of higher and secondary education shall be as nearly equal as possible." This is before us for action.

THE CHAIR: This amendment that was presented at the last meeting has been before the executive committee for a year, and the Association will now proceed to vote upon it. Striking it out will practically enable the Association to increase the representation of the colleges or the representation of the secondary schools without reference to the other element.

PRINCIPAL J. E. ARMSTRONG (Englewood High): I feel that the amendment to the constitution is a good one, and that there is no particular danger that the high school men will in this way dominate the Association. Of course, when this institution was formed there was the feeling that the membership should be kept equal in order that, everything considered, the two parts of the system should be equally represented, but, as we all know, the high school

men are scattered over a large territory; they are not able to get away from their schools in many cases; they in nearly all cases have to bear their own expenses, while the colleges are more accessible to the institution. They are men who perhaps have the more vital interest in the questions which are to be discussed by this Association, but it seems to me that we are simply going to be able to hold the interest of a larger number of secondary schools by admitting them to membership, and the history of the past shows that a very large proportion of the secondary schools hold their interest by paying their dues and by receiving, perhaps reading, the proceedings, and keeping posted as to the requirements for admission to the universities. So I believe the policy is a good one of having a large number of secondary schools interested enough in the Association to hold their membership, and I hope the motion will prevail.

THE CHAIR: I may say that this does not change the method of election to membership in the Association at all. It simply abolishes that one restriction. Any further discussion?

The motion was put and carried.

DEAN CLARK: The second amendment is that the following section be added: "If the dues of any member shall remain unpaid for two years such membership in the Association shall lapse."

On motion, the amendment was adopted.

DEAN CLARK: It was voted by the executive committee to recommend the following also, not as an amendment to the constitution but as an interpretation of the constitution: "Colleges and secondary schools whose membership

has lapsed shall become members only by making a new application, which shall be approved by the executive committee of the Association."

THE CHAIR: What shall be done with this recommendation of the executive committee?

On motion, the recommendation was adopted.

DEAN CLARK: The executive committee recommend the following for institutional membership in the Association:

Baker University, Baldwin, Kansas, President, Lemuel H. Murlin;

Purdue University, Lafayette, Indiana, President, W. E. Stone;

Illinois College, Jacksonville, Illinois, President, C. H. Rammelkamp;

Marietta College, Marietta, Ohio, President, A. J. Perry;

Kenyon College, Gambier, Ohio, President, William F. Pierce;

Coe College, Cedar Rapids, Iowa, President, William Wilberforce Smith;

Case School of Applied Science, Cleveland, Ohio, President, Charles S. Howe;

Chicago Teachers' College, Chicago, Illinois, President, Ella F. Young;

Illinois State Normal School, Normal, Illinois, President, David Felmley;

Eastern Illinois State Normal School, Charleston, Illinois, President L. C. Lord;

Western Illinois Normal School, Macomb, Illinois, President, Alfred Bayliss;

Southern Illinois Normal School, Carbondale, Illinois, President, D. B. Parkinson;

Northern Illinois Normal School, De Kalb, Illinois, President, John W. Cook;

Grand Prairie Seminary, Onarga, Illinois, President, H. H. Frost;

Lincoln High School, Lincoln, Nebraska, Principal, F. W. Sanders;

Fargo High School, Fargo, North Dakota, Principal, W. E. Hoover.

On motion, the recommendations were approved.

DEAN CLARK: It was voted also to recommend that the following institutions who were once members of the Association but whose membership has lapsed, be readmitted:

University of Minnesota, Minneapolis, Minnesota;

Wheaton College, Wheaton, Illinois;

On motion, the recommendation was approved.

DEAN CLARK: The following are recommended for individual membership:

Mr. C. P. Carey, State Superintendent of Schools, Madison, Wisconsin;

Superintendent C. C. Schmidt, Jamestown, North Dakota;

Professor Frank E. Thompson, University of Colorado;

President F. B. Gault, Vermillion, South Dakota;

Richard Heyward, Inspector of Schools, Grand Forks, North Dakota;

Professor F. G. Hubbard, University of Wisconsin, Madison, Wisconsin.

The motion and the recommendation of the committee was adopted and the individuals named above were elected to membership.

THE CHAIR: Report of the committee on the audit of the Treasurer's report, Professor Waldo, chairman.

PROFESSOR WALDO: Mr. President, in making out this report one member of the committee, Mr. Smart, was not present, and I could not secure his services at the time that the committee took action. However, it is signed by two members of the committee.

"The auditing committee have compared the items of expense with the vouchers and have added the items in the accounts, and find the Treasurer's report agrees with these in every particular.

"C. A. WALDO,
"FRANK HAMSHER,
"Committee."

On motion, the report was adopted and ordered entered on the minutes.

THE CHAIR: Committee on time and place of meeting, Mr. F. L. Bliss, chairman. Is the committee ready to report?

MR. F. L. BLISS: Mr. President, the committee on time and place of meeting beg to submit the following report:

"The committee begs to recommend that the next annual meeting of the Association be held at the Auditorium Hotel, Chicago, the date to be fixed by the executive committee as near April 1, 1909, as may be practicable.

"F. L. BLISS,
"FRANK W. BALLOU."

I would say also that the third member of this committee we were unable to find to sign the report.

On motion, the report was adopted.

Moved that the members of any of committees, or the chairmen of the same, may incur such expense in carrying on their work to be defrayed by the Association as they may have secured the approval of the executive committee for in advance of incurring the expense.

The motion was put and carried.

THE CHAIR: We have two other reports left over from yesterday that perhaps we will call for now—the report of the committee of ten of which Mr. Carman was chairman, upon this question of units.

DIRECTOR CARMAN: The committee of ten, appointed to consider the definition of a unit course of study in general, after considering the matter in detail, recommend the following definition for the present, with the understanding that the Commission shall be asked to investigate the matter fully and report later: "A unit course of study is defined as a course covering a school year of not less than thirty-six weeks, with four or five periods of at least forty-five minutes per week." The only change made in the original form as printed in our report of 1902 is that thirty-five weeks is changed to thirty-six weeks.

THE CHAIR: You have heard the report of the committee. What shall be done with it?

A MEMBER: Mr. Chairman, I raise the question as to whether or not the statement was made correctly by the secretary in saying that the limit of the period is forty-five minutes. The present status is forty minutes, is it not?

DIRECTOR CARMAN: The original definition as adopted and published in 1902 was forty-five minutes. The Board of Inspectors have interpreted that as forty minutes in the

clear. It seemed wise to the committee to leave it forty-five minutes, with the understanding that the time for the change of classes is included; therefore it was left as it was originally made, forty-five minutes. That was the action of the committee. If I am wrong I shall be glad to be corrected by any member of the committee.

On motion, the report of the committee was accepted.

THE CHAIR: President MacLean, of Iowa, chairman of the committee on classification of colleges.

PRESIDENT MACLEAN: Mr. President, the committee unanimously recommends that the report presented yesterday be re-committed to the Commission and that the following be adopted at this time:

1. That the Commission undertake the work of inspecting and accrediting colleges of liberal arts, whether separate or in universities, through a committee of three in each State. The committee shall be constituted as follows: The first member shall be an inspector of schools.

(a) In States having such an official the inspector of schools appointed by the State university.

(b) In other States the inspector of schools appointed by the State authority, or if there is no such official such person as the secretary of the Commission may select.

This is the present rule of this Association with reference to inspectors.

The second member of the committee shall be a president or dean of a college institution in this Association selected by the officers of the Commission.

The third member shall be a superintendent or principal of a secondary school in this Association selected by the officers of the Commission.

The inspector shall be the organ of communication between the college and the Commission.

2. The inspection will be upon invitation.

3. The accrediting shall be by vote of the Association upon the recommendation of the Commission based upon the report of the committee of inspection.

4. The Commission shall report at the next meeting of this Association the standards for accrediting.

5. The officers of the Commission are authorized to make blanks to secure the necessary data for the use of the accrediting committee.

6. In case the Association at its present meeting is ready to set out the standards for accrediting, point 4 above is withdrawn.

THE CHAIR: What is to be done with this report? This practically continues all debated points, I believe, to the Commission for further report.

PRESIDENT MACLEAN: Unless the Association wishes to proceed with reference to standards.

THE CHAIR: In other words, these various points are simply formulizations of what the Association is doing or has done already, the main report being recommitted for further consideration. What is to be done with this report?

It was moved and seconded that the report be adopted.

The motion was adopted.

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President William O. Thompson, of Ohio State University, then presented the following paper on "Moral Character in the Recommendation and Certification of Teachers."

## MORAL CHARACTER IN THE RECOMMENDATION AND CERTIFICATION OF TEACHERS.

From the very beginning good moral character has been assumed as vital for a teacher. No one has ever advocated that this requirement was a matter of indifference In fact, a good moral character in American experience has been assumed as the background upon which all individual efficiency has been written. Whether written into the statutes or not, there is no place in this country where responsible men and women would be willing to entrust the interests of the community to people of uncertain morals or of known delinquency. This requirement, however, has always been stated in general and somewhat indefinite terms. So long as the external life of the individual did not clash with the accepted customs of the community, the element of moral character was regarded satisfactory. No very definite inquiry upon this subject or careful examination into the effects of the moral character of the teacher upon the pupil has ever been made. A large amount of testimony could easily be gathered which would disclose the fact that hundreds and thousands of teachers, by their moral excellence, have inspired pupils and students to better living and even to better scholarship. This testimony, however, is more or less general but is not to be discredited on that account. On the other hand, no measure has ever been made of the damaging effects that have come from disclosing to the public mind the lapses from high ideals and good morals than have occurred in the experience of teachers. There would be general agreement that in this general and popular sense the moral character and with it the good reputation of the teachers of the country is of the highest importance. Nor could words be too strong in expressing the regret when unfortunate disclosures have

shattered the faith of the public in an occasional teacher here or there.

In addition to these general considerations, the topic assigned evidently suggests the desire to be a little more specific and discover, if possible, a direct connection between the moral character of the candidate to teach and the desired results of character building in those who are taught. Doubtless this inquiry has been stimulated by the general awakening of the American conscience and by the deepening conviction that the results of education are to be measured more in the future from the ethical than from the merely intellectual point of view. A hasty review of the educational literature and the discussions at educational gatherings will reveal the fact that moral character looms up large as one of the great aims of all education. There is a growing conviction that we cannot be indifferent to the ethical ideals obtaining in those who have been enjoying the opportunity and discipline of our schools. Manifestly, we cannot expect these results to be better than the agencies used in producing them. On the general theory that "a good tree bringeth forth good fruit," the public is anxious that the moral character of our leaders shall be reliable and trustworthy. The widespread influence of education adds to the importance of this question. Every philanthropic, patriotic, and humanitarian motive puts a new emphasis upon this requisite in a teacher.

As already intimated, the older measures of moral character have been somewhat general and indefinite. It has usually been so indefinite that a person without particular offense to community ideals was regarded as a person of good moral character. This was chiefly a negative view of morals. Because one did no outlandish thing he was assumed to be good. In many instances this assumption was probably justified. In the homogeneous community of some-

what simple life there would naturally be no very severe or exacting tests of a positive sort and the absence of public transgression was about all that was required. It was always easy to testify to the good moral character of young men and young women. Probably in thousands of instances teachers in their teens began under such general approval but this carried no accurate information as to the ideals that ruled in their lives. The desire to teach was probably taken as an evidence of a worthy ambition and therefore of a certain idealism indicating a life of a little higher character than the average. This was doubtless true, but it was entirely consistent with the lack of maturity and strength essential to any accurate definition of character. The fact that a great many of such teachers developed into men and women of high character does not prove that the old tests were adequate; in fact it rather proves that whatever of good came from such methods was accidental rather than intentional.

In consideration of the importance of this requisite in a teacher, one must take into account the fact that a great many foreign ideals have obtained in the minds of newly-made Americans. Of course, America has been largely filled with a foreign population. In the earlier days, however, the man who sought this country sought it for certain definite reasons under the general theory of religious and political freedom and the pursuit of liberty and happiness. These early men had sturdy convictions upon the questions of fundamental religion and morality. They determined the social ideals of character and early American life. It is a matter of common observation that the emigration into this country in later years has been of a different character and that in thousands of instances men come not out of any conviction that America offered an opportunity for civil and religious liberty but from the fact that certain commercial in-

terests in this country were eagerly searching for cheap labor. Many who have come under this motive have been totally lacking in the high ideals current two generations ago. It is also a matter of common observation that the children of these people often become the teachers of American youth and that they are more or less under the sway of the family ideas as to religion, morality, and civic virtue. It is needless to say that these people do not represent the historic spirit in American life. Neither the first nor the second generation has been completely Americanized. The problem of the school in many of our cities and, indeed, in many of our institutions of higher learning, has been to assimilate these elements and to convert them to the American position. No theory of freedom or personal liberty can be justified that looks toward a compromise between Oriental, European, and American ideals. These conditions seem to warrant the statement that the tests of moral character in the teaching force of the present generation need to be more careful, perhaps, more rigid than heretofore, unless we are willing to accept a sort of composite result which shall lack the characteristic features of American ideals.

I am not disposed to affirm that the American ideals have lowered or that we cling with less tenacity to our ideals. Without pessimism, however, one must see that there is a struggle in our country between what may be called the home and the foreign ideals. Unless we are to be defeated in a measure, or unless we are willing to haul down our banner of high ideals, the American school, which should be the doorway to all citizenship, must be directed and controlled by teachers of positive moral conviction, whose beliefs work out in a definite effort to secure the highest results in the moral character of pupils. There is some evidence that our generous freedom has furnished opportunity

for all sorts of vagaries to find lodgment in the public mind. The toleration of such things is probably necessary, but we should be awake to the fact that the prevalence of such ideals is a menace to American morals. The school is one of the great agencies to counteract these tendencies.

The spirit of religious freedom and the desire to have our schools free from any sectarian bias meets universal approval. We must recognize, however, that in our eagerness not to impose upon the rights of others there is danger that we fail to carry the message of instruction. Mere theorists have so exaggerated the dangers of religious instruction in education and have so emphasized the importance of non-sectarianism that many teachers have felt relieved of responsibility for the moral character of students and have drifted into a kind of indifference toward moral issues. Such inactivity comes perilously near being moral delinquency in the teacher.

It is worth while to call attention to the fact that increasing population, highly diversified society, and extensive division of labor, all unite to make the moral problems of society more vital and fundamental than is possible in a more primitive condition. Every progressive city must define rights and duties more carefully than a village must do. The older society becomes the more important it is that the relations between people and the effect of every man's conduct upon his neighbor's welfare shall be clearly defined and universally understood. Ethics at the bottom is the science of human relationships. The questions of integrity, of honor, of truthfulness, of obedience to law, and of the binding force of contracts are infinitely more intense in a crowded city than in a partially settled rural district. Without offering any suggestion as to the sanctions of morality, it is manifest that the teacher who proposes to train citizens for such a life must be well trained in, and sympathetic

with these vital questions to society. Whether any person should be recommended to teach or legally certified to teach who is not competent to discriminate between the true and the false in these difficult questions and who is not heartily in accord with approved American ideals, is a question of very serious doubt. To employ teachers who fail in these particulars is to endanger the results which we all desire.

We need not disguise the difficulty in applying satisfactory tests of moral character. It is probably true that we cannot always be assured of the individual. All legal requirements will be more or less formal. For that reason they will probably be to some degree inadequate. The state, however, is warranted for its own sake in making a sincere effort to secure an honest assent to the formal requirements of good morals. Whether examination in fundamental and elementary ethics is desirable, is worthy of consideration. All schools preparing teachers should insist upon it. We must always keep in mind that all formal examinations are in a degree failures in the sense that they do not disclose real character. Some most important qualifications cannot be tabulated on paper.

It seems altogether feasible to discover the ideals that dominate the individual. "As a man thinketh in his heart, so is he." It would require some moral courage to reject an applicant to teach who met all intellectual requirements but whose social or moral ideals were out of harmony with what I conceive to be the American spirit. If school officers regarded a certificate as simply a legal document and would carefully inquire into the personal life and character of candidates, it would be possible to eliminate undesirable candidates. I believe this discrimination on the part of superintendents and Boards of Education and of college au-

thorities to be an important duty that ought to be faithfully met.

The discussion of this paper was lead by President John W. Cook, Northern State Normal School, DeKalb, Illinois, as follows:

## MORAL CHARACTER IN THE RECOMMENDATION AND CERTIFICATION OF TEACHERS.

Mr. President and members of the Association: Although President Thompson has not arranged his address under the forms of firstly, secondly, thirdly, it seemed as it was revealed to me by study of the paper submitted to cover the ground very thoroughly. Certain additions have been made to the paper since the original draft was sent to me that make it cover the ground still more completely. The problem which we are to discuss, if we are to give it a practical character, seems to me to be an extremely difficult one, difficult because we are endeavoring in this Association to determine things and these things that we are discussing this morning are extraordinarily difficult to determine in any practical way. The subject seemed comparatively simple when I first began to reflect upon it, but as I thought more and more upon it the difficulties increased with great rapidity.

There seem to be two matters involved in the discussion, first, the certification of teachers, and, second, the recommendation of teachers. The first of those we shall have very little trouble over. The second it seems to me we may have a great deal to do with, for our institutions from which persons are selected to engage in teaching work are expected to certify to the character of those persons; and now that many colleges and universities have arranged

for committees who are especially to exercise that function, it gives them a control which they have not heretofore had. Of course normal schools are always called upon to speak as to the character of their graduates, and they can usually determine two things, first, whether they are fit to graduate as determined from this point of view, and, in the second place, as to whether they are fit to be employed even if they have not graduated. It is unnecessary to discuss the question of personal morality. Of course every organization requires of those who are members of it a certain set of activities. These requirements may be said, I suppose, to constitute a sort of minimum character that will be looked to and examined in order to see whether the person is qualified to enter that organization. The state, since it has assumed the control of education, prescribes certain requisites in addition to intellectual requirements; it sets up a certain general, very general requirement, to the effect that those who receive certificates shall be persons of good moral character. We rest upon no very definite, clear specification of qualities.

Most of those who have the certification of teachers can not know very much about them, and so they rely upon recommendations, and generally I think the reliance is comparatively safe from one point of view, that is, as to the personal qualities in this matter of morality of the candidate. Yet there are really very different standards. I have visited quite a number of times a certain county in this state in which the pedagogical societies formerly met—I am not sure now as to their meeting—in the leading beer saloon of the city, and nothing was thought of it, because the community sentiment was in harmony with that sort of thing. I think that the pedagogic quality of their doctrine was very good. I can not speak advisedly as to the beer. I was present on more than one occasion when questions were dis-

cussed, and the interesting thing about it was that the superintendent of the city (and he was subsequently for two terms the Superintendent of Public Instruction of the State of Illinois), had for his special hobby the formation of moral character in the young, and worked to that end, and he accomplished a very great work. Perhaps it is well to say in passing that the German estimate of the saloon is very different from the American estimate of it, chiefly because the German saloon in German communities, is very different indeed from the American saloon in American communities. The Germans drink beer and the Americans run to a more ardent fluid.

Now I am not sure that we can do anything at all in changing this specification. The county superintendent is the main examiner under our laws in Illinois, and he is obliged to certify that the candidate is of good moral character, which means that he has not seriously affronted public opinion as to the estimate of his conduct.

All that the county superintendent has done by his certification is to constitute a certain group of persons from among whom the teachers may be selected; but the community is entirely at liberty to exercise its opinion as to those persons, and should know about them. I asked the Secretary of the Association what field he thought this discussion should cover, and he said all classes of schools. I suppose those classes of schools would be included under the general category of the elementary school and the secondary school and the college or higher educational schools.

The matter is entirely under the control of the higher institutions, because those persons are not obliged to be certificated. You go where you please to make your selections and you determine as to the qualifications on the side of morality as to these people whom you will employ. With the secondary schools, however, and the ele-

mentary schools, the proposition is materially different. The question, then, that has arisen in my mind, and that has given me a great deal of anxiety so far as I have had anxiety with respect to this discussion, was this: What shall we do in the recommendation of teachers beyond the ordinary requirement of common morality? It is not enough that one to be a teacher shall simply be a person of ordinary moral character, of good moral character. There must be on the part of the teacher the further consciousness that his business, his main business, is to see to it that the outcome of his work is a moral product, distinctly and unqualifiedly, an energetic moral product, a product that is conscious of the character of its activity and scrupulously careful with regard to it.

These three types of institutions develop three different sets of teachers. The subject is to be approached from one point of view in the elementary school; it is approached from a different point of view in the secondary school, where these tremendous forces which come in with adolescence are energizing in their extraordinary way, and the attitude is still different in the higher institutions of learning. I think I may say, although I can hardly pose as an expert with regard to this matter, that there is unfortunately in the university and college a certain indifference perhaps, not in thought but in the exercise of influence upon the pupil. The thought I think was well expressed here yesterday by somebody who said that the good ones can take care of themselves and the poor ones mostly drop out any way, because it is poor material and is not worth our effort. The very question we were discussing yesterday of endeavoring to influence the freshmen is along this very line. I find very great difference, for illustration, in the normal school between those persons who are set aside as advisers, in their influence upon those under their charge. It is

our plan to divide up our school, placing a group here and a group there under these advisers who are supposed to look after them patiently and faithfully; but I find the greatest difference in the interest which they manifest in regard to it. I think the matter is easily explained, because in the higher institutions of learning the element of knowledge, the intellectual aspect of the situation, is far more prominent. People go to the university and to the college in order especially to enlarge their store of knowledge, and it is perfectly natural, I suppose, that the teachers should be engaged with those conceptions, those employments, rather than with other employments where they feel extreme solicitude for the individual student. They think by that time a person ought to have developed enough personality to look after himself.

If we turn to the secondary and to the elementary school, we find there distinct and definite problems of a moral character. If the schools are disposed to adopt the Socratic proposition that knowledge is virtue, then they are satisfied that if they instruct these people well and they are excellent scholars, we may rest satisfied with their conduct. But we know very well we can not be satisfied with that. We must supplement the Socratic with the Aristotelian view, that is, that the formation of moral habits is the thing upon which we must rely and to which we must turn our attention with the greatest solicitude all through the elementary school and into the life of the adolescents in the secondary school. And, furthermore, if we would make these people those who, in the language of Rosenkrantz, consciously select the good, we must rationalize these habits, and we may advantageously study Aristotle in that connection.

Thus our solicitude with regard to these persons whom we recommend will be determined from two points of

view, the first as to their personal character. Are they people who not only meet the standard of the community, but are they, in addition to that, idealists in this matter of character? Do they really give the matter attention, and do they consciously struggle to achieve superiority, because in the attitude of teacher one's moral character should be a conspicuous fact. We know that all through the elementary and secondary schools the principle of imitation is operating with tremendous energy, and the teacher should be such a person as feels consciously the joy of the moral life and the necessities of it. He should have those high ideals, as I said awhile ago. He should be the idealist, who has a pride in, and a hunger and a thirst for, the moral life.

Furthermore, ought we not to expect from them a thorough interest in the moral aspects of instruction so that the outcome of their teaching shall quite inevitably be not only an acquaintance with the general principles of ethics but also a skill in the practical adaptation of the general principles of ethics to the production of a moral life? Ought we not, then, to pick out those who are interested in the moral aspect of education? Can we not in some way through our recommending committees do something to impress these young people who aspire to be teachers with the fact that we are looking after that sort of thing? As a rather low incentive, I have noticed that people who desire to get recommendations usually adapt their lives to what will get that recommendation. That is a little dangerous, I fancy. It ought to come with spontaneity. Nothing is of any value except the purest self-determination, and the situation is so delicate that if we touch the bloom of the flower it is possible the very thing that we are seeking for will fall to ashes in our grasp. That renders it extremely difficult.

Now what can we do? Can we in a way popularize this conception in the schools that we expect this active

and energetic attitude toward the production of moral character in pupils? If we can do that and have it generally understood in these institutions where we propose to recommend young men and young women for teachers that they can not hope for any cordial recommendation from those who have that function in charge unless they take the attitude toward it which we hope will eventuate in something like genuine results.

I have not time to discuss the awakening which has come to us from Herbartianism, which has been potent in changing the mental attitude of many of those who are interested in the work. It has done its work and we do not need to talk very much about it, just as the old child study movement has done its work and we do not need to talk very much about it.

I trust, then, that the attitude of those who have the function of recommending teachers will be changed somewhat if we thoroughly discuss this question which has been submitted by the executive committee.

Dean C. M. Woodward then presented the following:

Mr. President, I would like to ask the personal privilege for one minute.

We were all deeply shocked and grieved yesterday to hear of the death of Superintendent F. L. Soldan, of St. Louis. You have known him and I have known him. I have known him for over forty years and have been associated with him in educational work for twelve years. I have been a member of the Board of Education while he has been the superintendent of our schools in St. Louis. I offer this resolution for the Association to adopt:

"Resolved, That the members of the North Central Association of Colleges and Secondary Schools learn with pro-

found sorrow of the sudden death of our associate Superintendent F. L. Soldan, of St. Louis.

"For a third of a century he gave to the cause of education the full value of his tireless energy and his splendid abilities, as a teacher and educational leader. He was perhaps better known and more widely recognized than any other educator of the Central West.

"We gladly place on record this expression of our high esteem for him, and of our deep sympathy for the city and schools of St. Louis, his immediate associates, and the members of his family."

On motion, the resolution was adopted.

It was also voted that the Secretary of the Association be directed to telegraph Mr. Blewett, the Assistant Superintendent of Schools, St. Louis, some sentiment expressive of the feelings of the Association regarding the death of Superintendent Soldan.

Following this, Principal J. S. Brown, of Joliet, Illinois, read the following paper on "Commercial and Industrial High Schools versus Commercial and Industrial Courses in High Schools."

## COMMERCIAL AND INDUSTRIAL HIGH SCHOOLS VS. COMMERCIAL AND INDUSTRIAL COURSES IN HIGH SCHOOLS.

Four and a half score years ago, when Chicago with its environs took its place among the states of this union under the name of Illinois, it brought with its entrance, among other things, a heritage from the sacred ordinance of 1787, which read after this manner, *"Religion, morality* and

*knowledge* being necessary to the perpetuity of a free government, schools and the means of education shall forever be encouraged."

I wish that statement were cast in deathless bronze and hung up in a conspicuous place in every college and high school, because it places on record the thought of our fathers, the government's founders, and gives to the church, the home and the school their fundamental significance and their respective places in the development of a government by the people.

We do not believe in the worship of ancestors but we do believe in acting upon the assumption that we are indeed the "heir of all the ages in the foremost files of time," and hence all the usable good resulting from experience should be appropriated and embodied in any new educational effort.

Any new educational effort will fall short of accomplishing its purpose if it fails to reckon seriously and continuously with the fact that we are living in a *representative democracy* and that any scheme which tends to weaken that fact is striking at the very foundation on which the public school system *rests*. "It hath been said by men of old time, 'We hold these truths to be self-evident, that all men are created equal, that they are endowed by their creator with certain inalienable rights, that among these are life, liberty and the pursuit of happiness,'" etc. Do we need to interpret once more some of these fundamentals in the light of the twentieth century standards?

Now it is not my purpose to show the plan or function of industrial and commercial work, or any other kind of work, but to show whether it is advisable to establish a special school to do a special work every time the evolution of our educational thoughts suggests the addition of some new phase of education. Of necessity new phases of education will present themselves in the future just as they have

in the past and there ought to be determined some basic principle by which we might be judged in the introduction of this new work.

Any scheme which means the separation of the people of secondary school age into groups to be educated in separate schools is a great blow to democracy, because it recognizes *social classes* in schools supported by *public taxation;* because it recognizes no system of school organization, no uniformity of procedure; because it recognizes no central authority and because it stands for dissipation of energy.

We believe in concentration of both effort and energy. We believe in consolidation of courses of study in public high schools. We believe in educating all boys and girls of secondary school age together, and providing different courses to suit their varying needs. We believe that in this adolescent period when naturally there is much of unrest, uncertainty and etherealization there is great need of the balancing and ballasting effect which comes from keeping in close touch the boys who know they are going to be lawyers and those who know they are going to be farmers, mechanics, engineers and business men. The one exercises a wholesome influence on the other in showing and exercising that mutual interest which comes from close contact between young men and young women who have chosen to exert their powers along unrelated lines of work.

Is the man a poorer lawyer because he knows from first hand knowledge the struggles of a fellow student who learned the machinist trade. But suppose we put together in a separate building all the boys who are to become mechanics or blacksmiths, and in another building all the boys who are to become lawyers and doctors, is the bond of common knowledge which comes from intimate association continued as when each worked alongside in the same

school? You know the reverse is true. What was sympathy and good fellowship in the first case when both were educated together becomes antipathy and bitter suspicion and jealousy.

Boys and girls in this character-forming age need to learn that a truly American democracy can not be formed like a stratified rock and that the creation of separate schools, instead of broadening the courses of study means sooner or later the arraying of one element of society against another, a condition far too prevalent now in certain quarters, for the good of the state.

Let the prospective domestic, the prospective milliner and the prospective candidate for a foreign title by right of purchase be educated together and it will tend to reduce the number of such entangling alliances and their desire for them. We ought to have one type of high school and that with courses of study enough to meet the demands of the community. When more than one is needed make another of the same type and thereby give to each community the same scholastic opportunity.

Does any kind of sound pedagogy defend the establishment of an English High School, an Industrial High School, a Classical High School, a Commercial High School, a Latin High School, a Mechanic Arts High School, an Agricultural High School, when all the lines of work here represented and any others which our national development may render desirable may be taught in one kind of high school? We have one taxing unit for our public school support. Why set up one type of high school to fight another and to demand according to a temporary change in public sentiment an unreasonable proportion of public funds? Shall we erect a special school for those who are going to college? Another for those who are going to teach? Another for those who will enter upon a business

career? Another for those who are going to enter the military or naval service or the diplomatic or consular service?

Where shall the end be? and who shall set the limitations? Is it not clear that such a procedure is a dissipation of effort, a real waste of energy?

I am unalterably opposed to the sorting of pupils after the manner proposed at the Chicago meeting for the promotion of Industrial Education. No man may sort my children in the adolescent stage and say to one, "You are to be a watchmaker"; to another, "You are to be a lawyer"; to another, "You are to be a typewriter". We can't sort folks as we sort potatoes and apples, sheep and cattle. The potter hath power over the clay to make of the same lump one vessel to honor and another to dishonor, but in a great house there are not only vessels of silver and of gold, but of wood and of earth, and some to honor and some to dishonor, and if a man purge himself from these he shall be a vessel unto honor sanctified and meet for the Master's use and prepared unto every good work.

Boys and girls of adolescent age are not clay, nor can they be made this or that at the behest of the schoolmaster; they must, very largely, choose for themselves, and that, too, regardless of financial, scholastic or social ranking by any teacher or set of teachers. The creation of public schools by the public to teach the industries, agriculture, commercial branches, manual arts, etc., means the separation of young people into fixed classes according to their occupations.

Again, in most communities, we find now a good high school sentiment, a good defense in public opinion for their continued maintenance, but every time we make a separate school to teach one small field of work we divide that public sentiment and the logical outcome of such division is

the disappearance of public sentiment favoring public high schools of any kind.

Dean Davenport well says in a recent publication, "To segregate any class of people from the common mass and to educate it by itself and solely with reference to its own affairs is to make it narrower and more bigoted generation by generation.

It is to substitute training for education and to breed distrust in the body politic. Knowledge is necessary to a just appreciation of other people and their professions and mode of life. With this only can a man respect his own calling as he ought and love his neighbors as he should. We can not segregate and make an educational cleavage at the line of occupations except to the common peril."

We maintain that separate schools should not be established for each new line of work as presented, but that new courses and new departments should be made setting forth new lines of endeavor as rapidly as our changing conditions render such action necessary, for the following reasons:

1. Such a step can not be defended on economic grounds. Funds available at present are inadequate to meet the real needs of the high school now, and to make a separate school, to teach the work of a department means that we cripple seriously the work we are now doing and do indifferently the new work. Moreover, such a step really means a duplication, in large measure, of library and laboratory facilities and hence a greater cost per pupil. The creation of a new department to do well any new work is easily defended on economic grounds.

2. The "esprit de corps" in any secondary school is one of the most valuable assets of the school. A division of the total pupilage made necessary in the formation of separate schools utterly destroys this school spirit and tends to lower

the plane of the institution to that of an apprentice school or a factory. If such a condition makes for either a more complete life or greater social efficiency we fail to understand how it is done.

3. Almost the only democratic institution remaining in American life to-day is the public school, and we look upon any attempt to sweep this secondary institution of learning from its democratic moorings as nothing less than public calamity. The classification of pupils of adolescent age by placing some in a preparatory school for the professions only and others in separate and different schools to prepare them for the industries, the offices, the machine shop, the farm and the factory must mean a social cleavage which savors too much of difference only in dollars and cents, in kind of clothing and social prestige. To us this looks like an importation upon which the tariff should be made immediately prohibitive. Too well do many in secondary school work know that in all this great middle west and the far west where there is much smaller opportunity to send the boys and girls to expensive fashionable fitting and finishing schools, the public high school has been infested with small, exclusive, barbaric, undemocratic cliques, called frats, and that these organizations have done unmeasured harm to the schools. Let us avoid any step in our educational development which would recognize, foster, give aid or comfort to or in any way encourage such an innovation. "An ounce of prevention is worth a pound of cure."

4. It is bad pedagogy to magnify the training and minify education proper and yet this is precisely what is proposed in the formation of separate schools instead of creating a new department in the same school. The point of view is necessarily confined to the particular field of endeavor in the separate school, but in the separate departments all other departments contribute in the determination of the

point of view. Is not this the broader, the wiser, the saner method of procedure?

5. It is not in the number of our school buildings, nor yet in the narrowness of our curricula, but in the oneness of effort that we are to go on to higher and better things in education. Consolidation of educational effort means greater efficiency at smaller cost.

Concentration of capital makes it possible to pay a higher wage and produce better food, better clothing, better machinery.

In the factory world we no longer look for men who can make an entire shoe, an entire coat, an entire watch, but we have a large number of people especially skilled whose combined effort gives us a better and cheaper shoe, a better and cheaper coat, a better and cheaper watch.

It seems to me there is a justifiable parallelism in our proposition. In the high school development on the departmental plan, with many courses meeting the changing needs of the community, we have teachers who are especially prepared to do their work, but their combined efforts are at the service of all students in the school; while in the separate school, with its narrow field of work and its consequent teaching force, the combined effort can not mean greater efficiency nor more complete life.

Co-operation, consolidation, combination, concentration, unity of effort have their places in educational economy and the sooner the directors of our educational institutions realize this the sooner shall we be able to secure and maintain the highest rank in the educational world.

A second paper was read upon this same subject by Professor W. A. Scott, of the University of Wisconsin, Madison, Wisconsin, as follows:

## COMMERCIAL HIGH SCHOOLS VERSUS COMMERCIAL COURSES IN HIGH SCHOOLS.

The subject before us for discussion has practical significance in only a comparatively small number of the localities represented in this conference. Financial considerations alone would probably prevent the establishment of commercial high schools in towns of small size, and even in larger towns which have students enough desirous of pursuing a commercial course to warrant the equipment of a school for them alone, their wide distribution might prove a serious obstacle. However, I assume that the subject we are supposed to discuss is the relative advantages and disadvantages of commercial high schools and commercial courses in high schools in localities where there is an effective choice. If one were able to have either the one or the other which ought he to choose?

As I view the matter, commercial high schools have the advantage over their competitors in the matter of the creation of a business atmosphere and in the shaping of their courses to practical ends. By business atmosphere I do not mean an atmosphere of greed or the kind of an atmosphere created by over-emphasis of the money-making and gain-acquiring spirit. Such an atmosphere ought not to be created anywhere, least of all in a school where young people are training for their life work. The kind of an atmosphere of which I am speaking results from hard work, from the constant application of the test of ability to do specific things and from constant insistence on accuracy, punctuality and the strictest integrity. These are some of the demands made upon young men when they go into business, and it is desirable that during the process of their training they should have had some experience of an environment created by such demands. My point is that such an

environment is more easily created in commercial high schools than in commercial courses in high schools. My chief reason for so thinking is the fact that these must be paramount and conscious aims in a commercial high school and the entire machinery of the school can be made to work toward their realization, while in commercial courses serious obstacles may be thrown in the way by the necessity of co-operation with other departments of the school. Take, for example, the matter of hard work. In a commercial course it is impracticable to raise the standard in this particular above that of the school as a whole because students from various departments are certain to be herded together in a large number of the classes and it is necessary to treat all students in the same class in the same way. In a commercial high school it seems to me to be practicable and proper to set a higher standard. It is proper to assume that because of the definiteness of their purposes commercial students will submit to greater pressure and will put forth greater energy under the same pressure, and that both they and their parents can be more easily taught the value of the discipline of hard work.

A higher and more definite standard of attainment seems to me also to be possible in a commercial high school. Here one course follows another in the sense that the student must be able to do certain specific things, such as calculate accurately, write legibly, compose a readable and pointed letter, analyze and properly record the elements of an account, etc., etc., before he can do the work of the next course. His ability to do or not to do specific things is thus constantly put to the test and his right to promotion from one class to another accurately determined. If students who are not put to these subsequent tests are trained in the same classes with the commercial students the standard is certain to be determined by the capacity and willingness to

work of the average student rather than ability to do the specific things required.

The ease with which accuracy may be lost sight of in a mixed class was impressed upon me recently while inspecting a recitation in review arithmetic in a high school in Wisconsin. In that particular class commercial students were in the minority and the teacher felt that ability to state the problem clearly and to write down the various steps involved in its solution were the important things to drill upon. The result was that every student made an elaborate statement of his problem and in recitation rattled off the lingo he had been taught in a manner approaching perfection, but not one out of ten secured the correct result. That defect, however, was passed over very lightly, the teacher suggesting that the error may have been due to incorrect multiplication here, to incorrect subtraction there, or to incorrect addition in the other place. In discussing the matter with him after class the teacher made a strong defence for his method of procedure on the ground that if he had insisted on correct results, he would have had little or no time for anything else, and that for the vast majority of the students in the class ability to state the problem and to see the various steps involved were more important than accuracy. The students in that class certainly received the impression that in the computing of interest a correct result was of small importance compared with the method of procedure. I do not believe such a mistake in emphasis could have been made in a commercial high school in which the teacher in accounting would have been obliged to send most of those students back into the arithmetic class. The criticism of the attainments along this line of the small percentage of the arithmetic class I inspected would have made little impression. Their deficiencies would probably have been thought due to their own carelessness, the other

members of the class never having been submitted to the test.

Further illustrations are probably unnecessary. In matters of punctuality and integrity the case does not differ essentially from that just described. Because these aims may there be emphasized and the student's progress towards them constantly tested and everybody held up to the same standard, the commercial high school has the advantage.

The peculiarity of courses in commerce is the fact that they should be so constructed and administered as to develop the commercial virtues and the ability to perform commercial processes. This applies quite as much to the general as to the strictly professional or commercial subjects, as they are sometimes called. In a commercial course, for example, instruction in the foreign languages should aim at the acquisition of the ability to use the language for commercial purposes; instruction in English should develop the ability to write an effective business letter; instruction in arithmetic, to perform accurately the mathematical calculations required in everyday commercial processes; instruction in history, to understand the deeper influences which affect commercial life, etc., etc. In a general high school all of these subjects may and should be used for other purposes as well. The difficulty with a commercial course in such schools is likely to be that students from all departments must be taught together in these subjects, and consequently a compromise between various aims reached. Such a compromise necessarily involves some sacrifice by each group of students. A commercial high school is not subjected to such limitations. It has a free field. If its courses do not accomplish the results desired, the blame cannot be laid on the rigidity of the system imposed upon it by the machinery of which it is only a part. It may

create its own machinery and modify and adjust to suit its own purposes.

Another obstacle in the way of commercial courses in high schools is the necessity of using teachers not specially trained for commercial work and not specially interested in that phase of their work. Special teachers are rarely employed except for the so-called commercial subjects, and these very often feel that the atmosphere of the school is not congenial. A commercial high school can create an esprit de corps in its instructional force which will encourage the right kind of specialization in its teachers of foundational subjects and strongly back the teachers of the strictly professional subjects. It may be obliged to take raw material, but it stands some chance of shaping it to the proper form in time. There is little chance of this being done if the main work of the teacher is remote from commercial lines and the influences surrounding him but slightly, if at all, sympathetic with that branch of education.

On account of the definiteness of its aims and freedom from distraction due to a multiplicity of demands from different departments, a commercial high school is also apt to have the advantage in the matter of material equipment. Its books and apparatus are apt to be better selected and more abundant and it is apt to devote more attention to equipment for practice than is found possible in a commercial course.

It is obvious that in particular instances a commercial course might be able to overcome most, perhaps all, of these obstacles. In a large school it is not impossible completely to separate commercial from other students and to employ special teachers for them. In this case the difficulty of applying commercial standards and of introducing a business atmosphere would be diminished. The likelihood of such a result, however, depends largely upon the

extent to which the school authorities appreciate the other side of this question, the side I wish now to present.

Every person interested in commercial education has encountered the objections of the advocates of what is called liberal education and of the opponents of early specialization. Many people believe that specialization, certainly along vocational lines, ought not to come before the end of the college course; that up to that time the aim should be breadth of view, culture, survey of the widest possible field of knowledge, etc., etc. Many persons who thus believe object to commercial courses anywhere, in high school or college, in special or in mixed institutions. Others, however, admit the necessity of catering to the popular demand for such courses, and some few are broad enough to see that only commercial courses will bring certain classes of young people into our high schools and colleges, and are willing thus to accord them a value as educational attractions. Such persons are sure to object to the commercial high school on the ground that it keeps these promising lads out of reach of other and higher influences. Their hope is that under the influences surrounding them in the high school some may become innoculated with the virus of culture and desert the commercial course for something better. Every young man and woman ought at least to have a chance to learn that there are other objects in life worth working for besides the getting of a living or the making of money. It may be claimed that such chances are more likely to come in his way in a commercial course in a high school.

For this view, there is certainly much to be said. Barring from consideration the extravagant statements and claims often made by both parties to the controversy over liberal education, specialization, vocational courses, and similar topics, everyone must regret the temptations placed be-

fore young people to choose their life work before they have laid the proper basis for a choice, and to cut themselves off from the widest possible contact with the learned world. For one, I should be glad if every American young man and woman could have the advantage of the broadest kind of a high school and college course before beginning technical preparation for their life work. If this were possible, how enormously would the problems of technical education and vocational training be simplified and the general level of civilization raised! But this is not now possible and probably never will be. There will always be a great number who are incapable of taking and profiting by that amount of training, and still others who are capable but have no desire for it and cannot be induced to take it. It must not be assumed, however, that every young man who at the beginning of his high school course decides to fit himself directly for business belongs to one of these classes. Many of them may wake up to the other possibilities before the high school course is ended, if the proper kind of stimuli are applied. Is it not well to keep such young men within easy reach of such stimuli, and from this point of view does not the commercial course in a high school have an advantage worth serious consideration?

In attempting to answer this question one must not, of course, lose sight of those who will finish the commercial course and go directly into business. Granted that the commercial training they receive is not so good as they might have had in a commercial high school, have they received any compensating advantages? It is possible, I think, that contact with other students pursuing different lines of work and actuated by different purposes may have a broadening influence on even these students, and that this may properly be regarded as an offset to the sacrifice they have made in the quality of their commercial training. Whether

or not it is an adequate offset depends largely on the character and fiber of the student.

The situation I am discussing would not be met by crediting commercial courses for entrance to college. The question does not so much concern the terms on which a commercial student shall be admitted to college as it does the awakening of the desire to go to college. The commercial course in high schools, however, seems to have the advantage along both lines. It is in a better position than its competitor to stimulate students to go to college, and having awakened the desire, to steer their preparation in that direction.

As I view the matter, therefore, a commercial high school, which makes full use of its opportunities, should have to its credit a better business atmosphere, more practical courses, better instructors, and better material equipment than a course established in a high school of the same grade and equally well managed. As offsetting advantages, the commercial course should be credited with superior opportunities for learning of other occupations than business and of other purposes in life than the acquisition of gain, greater ease of transfer to other courses in case of a change in the student's desires or prospects regarding his life work or his training beyond the high school, and a more broadly civilizing influence on those who actually make the high school commercial course the avenue through which to enter business life.

The choice between these alternatives is not easy. The balance of advantages and disadvantages will be differently estimated by different people, and it will actually be different under different conditions. The character and prospects of the young people with whom one has to deal is a primary consideration. If college is clearly out of the question for them and if they are certainly destined for business

at the end of the secondary course, and if their capacity to take on polish from contact with others is relatively small, the balance in favor of the commercial high school will be large, and the decision tolerably easy. If, on the other hand, one has to deal with the average group of young Americans to be met with in the villages, small cities, and certain portions of the large cities of this country, the balance may quite as decidedly turn to the side of the commercial course. These young people need to be carefully assorted. They are certain to have decided in favor of a commercial course from very different motives, some of which are wrong. They frequently need to be protected from their own or their parents' bad judgment. The American's birthright of unlimited opportunity to turn in the direction fortune or interest or desire dictates ought to be kept easily and temptingly within his reach at least to the end of his high school course.

I am conscious that it is very easy to exaggerate both the advantages and the disadvantages of the two institutions I have been attempting to compare. There are commercial high schools and commercial high schools, commercial courses and commercial courses. I have read programs of the former which so closely resembled those of ordinary high schools that I wondered why the adjective commercial was used in the title, and I have inspected commercial courses that did not deserve the name course. They consisted of a little type-writing, stenography and bookkeeping taken on the side by the best students and as snaps by those who did not want to work and must in some way be kept in the school and ultimately given a diploma. Obviously if one were to make a judicious selection of his institutions for comparison, he could easily support any conclusion desired. I have attempted to hold before my mind's eye high but attainable ideals along both lines, and balance advantages and disadvantages as they would appear under identical conditions.

The Committee on Nominations recommended the names of the following officers for 1908-09.

FOR OFFICERS FOR THE YEAR 1908-1909.

President, Principal E. W. Coy, Hughes High School, Cincinnati, Ohio.

Secretary, Dean T. A. Clark, University of Illinois.

Treasurer, Principal J. E. Armstrong, Englewood High School, Chicago.

VICE-PRESIDENTS.

WISCONSIN.

President Ellen C. Sabin, Milwaukee-Downer College.
Principal Edwin P. Brown, Wayland Academy.

MICHIGAN.

Professor W. W. Beman, University of Michigan.
Superintendent S. O. Hartwell, Kalamazoo.

OHIO.

George M. Jones, Secretary Oberlin College.
W. M. Townsend, Principal Central High School, Columbus.

IOWA.

President Wm. F. King, Cornell College.
Principal Geo. Edward Marshall, Davenport High School.

ILLINOIS.

Dean Marion Talbot, University of Chicago.
Principal Oliver S. Westcott, Waller High School, Chicago.

MISSOURI.

Dean J. C. Jones, University of Missouri.
Principal W. J. S. Bryan, Central High School, St. Louis.

NEBRASKA.

Professor A. A. Reed, University of Nebraska.
Principal F. W. Sanders, Lincoln High School.

INDIANA.

The Rev. Matthew Schumacher, University of Notre Dame.
Principal George H. Benton, Shortridge High School, Indianapolis.

KANSAS.

President Norman Plass, Washburn College.
Principal H. L. Miller, Topeka High School.

MINNESOTA.

President S. H. Bridgman, Hamline University.
V. K. Franda, Central High School, St. Paul.

COLORADO.

President William F. Slocum, Colorado College.
Principal W. H. Smiley, Denver High School.

OKLAHOMA.

President David R. Boyd, State University.
Superintendent L. W. Baxter, Guthrie.

SOUTH DAKOTA.

F. B. Gault, Vermillion.
Superintendent Clyde Stone, Huron.

NORTH DAKOTA.

E. J. Babcock, University of North Dakota.
Richard Heywood, Inspector of Schools.

MEMBERS OF THE EXECUTIVE COMMITTEE.

President W. L. Bryan, University of Indiana.
Professor Fred N. Scott, University of Michigan.
Principal J. Stanley Brown, Joliet High School.
Superintendent W. A. Greeson, Grand Rapids, Michigan.

On motion the report was adopted, and the persons nominated were declared elected.

The President announced the appointment of the following members of the Commission from 1908 to 1911:

President George E. McLean, Iowa; Director George N. Carman, Lewis Institute; President John R. Kirk, Kirksville, Missouri, and Principal Frederick L. Bliss, Detroit, Michigan.

On motion of Professor Mann the following committee

was appointed to urge on the National Education Association the preparation of an adequate report on the subject of industrial education in public schools:

Principal J. Stanley Brown, Joliet, Illinois; Professor Otis W. Caldwell, Chicago, and Professor C. R. Mann, Chicago.

President James then introduced the new president with the following remarks:

I take very great pleasure in introducing my successor as President of the Association for the coming year. I have a deep personal pleasure in introducing Professor Coy. It is thirty-five years ago about this time that he was putting the finishing touches on me in a preparatory school in this state to send me off to college. In those days he was a very cruel and harsh teacher and had thrashed off the class with which I began, of something like fifteen to twenty, to one, the result of which was I had the benefit of his private instruction for over a year, at the very critical time of my preparation for college. I believe I got from that year's work from Professor Coy more solid advantage than I ever got from instruction and intercourse with any other teacher in the high school, college or university, and I am glad to have this opportunity for this little personal word, and to introduce him to the Association.

PRESIDENT COY:

Mr. President, ladies and gentlemen: This is so sudden. I recall to mind that one of our presidents received a nomination in a convention here in Chicago largely because he made a very eloquent speech in behalf of another candidate. I will say I made as eloquent a speech as I could in behalf of a more worthy candidate to some of the members of the nominating committee for this position, not, however, with the expectation that the same result was going to

follow. I appreciate very highly the honor you have done me and I shall undertake to do the business of this office, with your assistance, as well as I can.

I want also to thank the outgoing president of this Association for the very kindly words that he has spoken. If my efforts with him for that year were so successful, it was very largely because I had a very excellent pupil.

On motion, the Association adjourned.

THOMAS ARKLE CLARK,
Secretary.

## LIST OF MEMBERS.

### INSTITUTIONS.

(c. m. means charter member.)

#### OHIO.

Ohio State University, c. m., Columbus, President W. O. Thompson.
Western Reserve University, c. m., Cleveland, President Charles F. Thwing.
Oberlin College, c. m., Oberlin, President H. C. King.
Ohio Wesleyan University, c. m., Delaware, President Herbert Welsh.
Denison University, '99, Granville, President Emory W. Hunt.
University of Cincinnati, '99, Cincinnati, President C. W. Dabney.
Miami University, '04, Oxford, President Guy P. Benton.
Case School of Applied Science, '08, Cleveland, President Charles S. Howe.
Marietta College, '08, Marietta, Ohio, President A. J. Perry.
Kenyon College, '08, Gambier, Ohio, President William F. Pierce.
Central High School, c. m., Cleveland, Principal Edward L. Harris.
Hughes High School, '96, Cincinnati, Principal E. W. Coy.
Central High School, '96, Toledo, Principal W. B. Guitteau.
Walnut Hills High School, '99, Cincinnati, Principal W. Taylor Harris.
Woodward High School, '99, Cincinnati, Principal Geo. W. Harper.
West High School, '00, Cleveland, Principal Theo. H. Johnston.
East High School, '02, Columbus, Principal F. B. Pearson.
University School, '02, Cleveland, Principal Geo. D. Pettee.
South High School, '02, Cleveland, Principal G. A. Ruetenik.
Lincoln High School, '02, Cleveland, Principal J. W. McLane.
East High School, '02, Cleveland, Principal B. U. Rannels.
Rayen High School, '03, Youngstown, Principal W. L. Griswold.
North High School, '05, Columbus, Principal C. D. Everett.
Glenville High School, '06, Cleveland, Principal H. S. Cully.
Central High School, '06, Columbus, Principal W. M. Townsend.
South High School, '06, Columbus, Principal C. S. Barrett.
Central High School, '96, Toledo, Principal C. F. Ball.

MICHIGAN.

University of Michigan, c. m., Ann Arbor, President Jas. B. Angell.
Central High School, c. m., Grand Rapids, Jesse B. Davis.
Michigan Military Academy, c. m., Orchard Lake, Principal L. C. Hull.
High School, '95, Kalamazoo, Superintendent S. O. Hartwell.
East Side High School, '95, Saginaw, Superintendent E. C. Warriner.
Detroit University School, '00, Detroit, Principal Frederick L. Bliss.
Olivet College, '06, Olivet, President E. G. Lancaster.
Central High School, c. m., Detroit, Principal David Mackenzie.
High School, '06, Charlotte, Superintendent M. R. Parmelee.

INDIANA.

Indiana University, c. m., Bloomington, President W. L. Bryan.
Purdue University, '08, Lafayette, President W. E. Stone.
Wabash College, c. m., Crawfordsville, President George L. Mackintosh.
University of Notre Dame, '06, President John Cavanaugh.
High School, c. m., La Porte, Superintendent John R. Wood.
High School, '96, Fort Wayne, Principal C. F. Lane.
High School, '01, Lafayette, Superintendent E. Ayers.
Howe School, '04, Lima, Rector T. H. McKenzie.
Shortridge High School, c. m., Indianapolis, Principal G. W. Benton.

ILLINOIS.

University of Illinois, c. m., Urbana, President E. J. James.
University of Chicago, c. m., President H. P. Judson.
Northwestern University, c. m., Evanston, President A. W. Harris.
Lake Forest College, c. m., Lake Forest, President John S. Nollen.
Knox College, '96, Galesburg, President Thomas McClelland.
Illinois College, c. m., Jacksonville, President C. H. Rammelkamp.
Chicago Teachers' College, '08, Chicago, President Ella F. Young.
Illinois State Normal School, '08, Normal, President David Felmley.
Eastern Illinois State Normal School, '08, Charleston, President L. C. Lord.
Western Illinois Normal School, '08, Macomb, President Alfred Bayliss.

Southern Illinois Normal School, '08, Carbondale, President D. B. Parkinson.

Northern Illinois Normal School, '08, DeKalb, President John W. Cook.

Wheaton College, Wheaton, President Charles A. Blanchard.

High School, c. m., Evanston, Principal W. F. Beardsley.

Evanston Academy of Northwestern University, c. m., Principal A. H. Wilde.

Manual Training School, c. m., Chicago, Director H. H. Belfield.

Harvard School, c. m., Chicago, Principal John J. Schobinger.

Lake Forest School, Lake Forest, Head Master J. C. Sloan.

West Division High School, '96, Chicago, Principal C. M. Clayberg.

Lake View High School, '96, Chicago, Principal B. F. Buck.

Englewood High School, '96, Chicago, Principal J. E. Armstrong.

Ottawa Tp. High School, '96, Ottawa, Principal J. O. Leslie.

Lyons Tp. High School, '96, La Grange, Principal S. R. Cole.

Lewis Institute, '95, Chicago, Director G. N. Carman.

Streator Tp. High School, '97, Streator, Principal Ralph R. Upton.

Bradley Polytechnic Institute, '97, Peoria, Director T. C. Burgess.

High School, '98, Elgin, Principal W. S. Goble.

Lake High School, '99, Chicago, Principal Edward F. Stearns.

Marshall High School, '99, Chicago, Principal Louis J. Block.

West Aurora High School, Aurora, Principal C. P. Briggs.

Rock Island High School, Rock Island, Principal H. E. Brown.

New Trier High School, Kenilworth, Principal F. L. Sims.

Kewanee High School, '04, Kewanee, Principal J. B. Cleveland.

La Salle-Peru Tp. High School, '05, Principal T. J. McCormack.

East Side High School, '05, Aurora, Principal C. L. Phelps.

Township High School, '05, Joliet, Principal J. Stanley Brown.

J. Sterling Morton High School, '05, Clyde, Principal H. V. Church.

Township High School, '06, Sterling, Principal E. T. Austin.

Rockford College, '06, Rockford, President Julia Gulliver.

High School of the University of Chicago, '06, Principal W. B. Owen.

Grand Prairie Seminary, '08, Onarga, President H. H. Frost.

WISCONSIN.

University of Wisconsin, c. m., Madison, President Charles R. Van Hise.

Beloit College, c. m., Beloit, President Edward D. Eaton.

Ripon College, '04, Ripon, President Richard C. Hughes.

Milwaukee-Downer College, '97, Milwaukee, President Ellen C. Sabin.
Milwaukee Academy, '97, Milwaukee, Principal J. H. Pratt.
North Division High School, '04, Milwaukee, Principal R. E. Krug.
Lawrence University, '05, Appleton, President Samuel Plantz.
South Division High School, '06, Milwaukee, Principal E. Rissman.
Wayland Academy, '06, Beaver Dam, Principal E. P. Brown.
East Division High School, '07, Principal George A. Chamberlain.

MINNESOTA.

University of Minnesota, '96, Minneapolis, President Cyrus Northrup.
Humboldt High School, St. Paul, Principal H. S. Baker.
Central High School, '04, St. Paul, Principal V. K. Froula.
Cleveland High School, St. Paul, Principal Milo Stewart.
Carlton College, '06, Northfield, President W. H. Sallmon.

IOWA.

State University of Iowa, c. m., Iowa City, President Geo. E. MacLean.
Cornell College, c. m., Mt. Vernon, President Wm. F. King.
State Normal School, c. m., Cedar Falls, President D. S. Wright.
Iowa College, '95, Grinnell, President J. H. T. Main.
Drake University, '06, Des Moines, President H. M. Bell.
Coe College, '08, Cedar Rapids, President N. N. Smith.
High School, '06, Council Bluffs, Principal S. L. Thomas.
High School, '06, Dubuque, Principal F. L. Smart.
West High School, '06, Des Moines, Principal Maurice Ricker.
Simpson College, '06, Indianola, President Charles E. Shelton.

MISSOURI.

University of Missouri, c. m., Columbia, President Richard H. Jesse.
Washington University, c. m., St. Louis, Chancellor Winfield S. Chaplin.
Drury College, '98, Springfield, President Homer T. Fuller.
Missouri Valley College, '98, Marshall, President Wm. H. Black.
Central High School, '96, St. Louis, Principal W. J. S. Bryan.
Westminster College, '00, Fulton, President David R. Kerr.
Mary Institute, '00, St. Louis, Principal E. H. Sears.
Kirkwood High School, '00, Kirkwood, Superintendent R. G. Kinkead.

Park College, '02, Parkville, President Lowell M. McAfee.
Wm. McKinley High School, St. Louis, '05, Principal G. B. Morrison.

NEBRASKA.

University of Nebraska, '96, Lincoln, President E. Benj. Andrews.
Lincoln High School, '98, Lincoln, Principal F. W. Sanders.

KANSAS.

University of Kansas, '96, Lawrence, Chancellor Frank Strong.
Washburn College, '06, Topeka, President Norman Plass.
Baker University, '08, Baldwin, President Lemuel H. Murlin.

COLORADO.

University of Colorado, '96, Boulder, President Jas. H. Baker.
Colorado College, '96, Colorado Springs, President W. F. Slocum.
The Miss Wolcott School, '06, Denver.

OKLAHOMA.

University of Oklahoma, '01, Norman, President David R. Boyd.

SOUTH DAKOTA.

University of South Dakota, '08, Vermillion, President F. B. Gault.
High School, Sioux Falls, '08, Principal W. J. Earley.
High School, Yankton, Principal R. C. Shellenbarger.
High School, Aberdeen, '07, Principal W. L. Cochrane, Aberdeen.

NORTH DAKOTA.

High School, Fargo, '08, Principal N. E. Hoover.

## INDIVIDUAL MEMBERS.

OHIO.

Charles S. Howe, '02, President of Case School of Applied Science, Cleveland.
Jos. V. Denney, '03, Dean of the College of Arts, Philosophy and Science, Ohio State University, Columbus.
W. W. Boyd, '03, High School Visitor, Ohio State University, Columbus.
G. M. Jones, '05, Secretary of Oberlin College, Oberlin.
F. C. Hicks, '06, Professor in the University of Cincinnati, Cincinnati.

F. W. Ballou, High School Inspector, University of Cincinnati, Cincinnati.

J. W. Carr, '08, Superintendent of Schools, Dayton.

MICHIGAN.

Fred N. Scott, '98, Professor in the University of Michigan, Ann Arbor.

L. H. Jones, '95, President of the State Normal School, Ypsilanti.

A. S. Whitney, '03, High School Inspector, University of Michigan, Ann Arbor.

W. W. Beman, '95, University of Michigan, Ann Arbor.

Wm. A. Greeson, '97, Superintendent of Schools, Grand Rapids.

INDIANA.

Clarence A. Waldo, '95, Professor in Purdue University, Lafayette.

Carl Leo Mees, '96, President of Rose Polytechnic, Terre Haute.

W. W. Parsons, '99, President of the State Normal School, Terre Haute.

ILLINOIS.

A. V. E. Young, '95, Professor in Northwestern University, Evanston.

Thomas C. Chamberlin '95, Professor in the University of Chicago, Chicago.

Harry P. Judson, '95, Professor in the University of Chicago, Chicago.

Marion Talbot, '97, Dean of Women, University of Chicago, Chicago.

Thomas F. Holgate, '99, Professor in Northwestern University, Evanston.

A. F. Nightingale, c. m., County Superintendent, 1997 Sheridan Road, Chicago.

R. E. Hieronymus, '03, President of Eureka College, Eureka.

H. A. Hollister, '03, High School Inspector, University of Illinois, Champaign.

H. F. Fisk, '05, Professor in Northwestern University, Evanston.

Walter Libby, High School Inspector, Northwestern University, Evanston.

T. A. Clark, '06, Dean of Undergraduates, University of Illinois, Urbana.

E. J. Townsend, '07, Professor in University of Illinois, Champaign.

WISCONSIN.

Edward A. Birge, '96, Professor in the University of Wisconsin, Madison.

A. W. Tressler, '03, High School Inspector, University of Wisconsin, Madison.

H. L. Terry, '06, State High School Inspector, Madison.

W. O. Carrier, '06, President of Carroll College, Waukesha.

F. G. Hubbard, '08, Professor in the University of Wisconsin.

C. P. Cary, '08, State Superintendent of Schools.

MINNESOTA.

George B. Aiton, '97, State Inspector of High Schools, Minneapolis.

IOWA.

F. C. Ensign, '06, High School Inspector, State University, Iowa City.

Charles E. Shelton, '06, President of Simpson College, Indianola.

Richard C. Barrett, '08, Professor Iowa State College, Ames.

E. W. Stanton, '08, Dean Iowa State College, Ames.

MISSOURI.

John R. Kirk, '98, President of the State Normal School, Kirksville.

C. M. Woodward, '99, Professor in Washington University, St. Louis.

A. Ross Hill, '04, Dean of Teachers' College, University of Missouri, Columbia.

Joseph D. Elliff, '05, High School Inspector, University of Missouri, Columbia.

Ben Blewett, '08, Assistant Superintendent of Schools, St. Louis.

NEBRASKA.

J. W. Crabtree, '04, University of Nebraska, Lincoln.

A. A. Reed, '07, High School Inspector, University of Nebraska, Lincoln.

KANSAS.

W. H. Johnson, '06, High School Inspector, University of Kansas, Lawrence.

COLORADO.

H. G. J. Coleman, High School Inspector, University of Colorado, Boulder.

Frank E. Thompson, '08, Professor, University of Colorado, Boulder.

SOUTH DAKOTA.

C. E. Swanson, Assistant State Superintendent of Public Instruction, Pierre.

F. B. Gault, '08, President, University of South Dakota, Vermillion.

NORTH DAKOTA.

Webster Merrifield, '07, President, University of North Dakota, Grand Forks.

Richard Heyward, '08, Inspector of Schools, Grand Forks.

C. C. Schmidt, '08, Superintendent, Jamestown.

# CONSTITUTION OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

## AS AMENDED AT THE THIRTIETH ANNUAL MEETING, MARCH 27, 1908.

### ARTICLE I.

NAME.

The name of the Association shall be the North Central Association of Colleges and Secondary Schools.

### ARTICLE II.

OBJECT.

The object of the Association shall be to establish closer relations between the colleges and secondary schools of the North Central States.

### ARTICLE III.

MEMBERSHIP.

Section 1.—The members of the Association shall consist of the following two classes: First, colleges and universities, and secondary schools. Secondly, individuals identified with educational work within the limits of the Association.

Section 2.—Election to membership shall require a two-thirds vote of the members present at any meeting, and shall be made only upon the nomination of the Executive Committee.

Section 3.—An institutional member shall be represented at the meeting of the Association by its executive head, or by some one designated by him in credentials addressed to the secretary.

Section 4.—No college or university shall be eligible to membership whose requirements for admission represent less than fifteen units of secondary work as defined by the Commission on Accredited Schools.

Section 5.—No college or university shall be eligible to membership which confers the degree of Doctor of Philosophy or Doctor

of Science except after a period of three years of graduate study, not less than two of which shall be years of resident study, one of which shall be at the institution conferring the degree.

Section 6.—No secondary school shall be eligible to membership which does not provide fifteen units of secondary work as defined by the Commission on Accredited Schools.

## ARTICLE IV.

### POWERS.

All the decisions of the Association bearing upon the policy and management of higher and secondary institutions are understood to be advisory in their character.

## ARTICLE V.

### OFFICERS AND COMMITTEES.

Section 1.—The officers of the Association shall be a President, two Vice-Presidents from each state represented in the Association, a Secretary, a Treasurer, and an Executive Committee consisting of the President, the Secretary, the Treasurer, and four other members elected by the Association.

Section 2.—The officers shall be chosen at the annual meeting for the term of one year, or until their successors are elected. The election shall be by ballot.

Section 3.—The Executive Committee shall have power to appoint committees for conference with other bodies, whenever in their judgment it may seem expedient.

Section 4.—In case an officer holding office as representative of an institutional member severs his connection with the institution represented, he shall at his discretion hold his office until the close of the next regular meeting of the Association.

Section 5.—The Executive Committee shall have authority to fill a vacancy in any office, the officer elected by the committee to hold office until the close of the next annual meeting.

## ARTICLE VI.

### DUTIES OF OFFICERS.

Section 1.—The President, or in his absence, one of the Vice-Presidents selected by the Executive Committee, shall preside at the meetings of the Association, and shall sign all orders upon the Treasurer.

Section 2.—The Secretary shall keep a record of the Proceedings of the Association and attend to all necessary correspondence and printing.

Section 3.—The Treasurer shall collect and hold all moneys of the Association, and pay out the same upon the written order of the President.

Section 4.—The Executive Committee shall make all nominations for membership in the Association, fix the time of all meetings not otherwise provided for, prepare programs, and act for the Association when it is not in session. All the acts of the Executive Committee shall be subject to the approval of the Association.

## ARTICLE VII.

### MEETINGS.

There shall be an annual meeting of the Association and such special meetings as the Association may appoint.

## ARTICLE VIII.

### MEMBERSHIP FEE.

To meet expenses, an annual fee of $10 shall be paid by each university, $5 by each college, and $3 each by all other members, and each member shall have one vote. If the dues of any member shall remain unpaid for two years, such membership shall lapse.

## ARTICLE IX.

### QUORUM.

One-fourth of the members of the Association shall constitute a quorum.

## ARTICLE X.

### AMENDMENTS.

This constitution may be amended by a three-fourths vote at any regular meeting, provided that a printed notice of the proposed amendment be sent to each member two weeks before said meeting.

## REGISTRATION.

Allen, Miss Clara B., Englewood High, Chicago, Illinois.
Anthony, Brayman N., President, Adrian College, Adrian, Michigan.
Armstrong, J. E., Principal, Englewood High, Chicago, Illinois.
Austin, C. B., Professor, Ohio Wesleyan University, Delaware, Ohio.
Babcock, E. J., Professor, University of North Dakota, Grand Forks, North Dakota.
Bacon, Paul V., 378 Wabash Avenue, Chicago, Illinois.
Baker, James H., President, University of Colorado, Boulder, Colorado.
Ballou, Frank W., Professor, University of Cincinnati, Cincinnati, Ohio.
Banersfeld, A. G., Thomas Hoyne Manual Training High, Chicago, Illinois.
Barrett, Charles S., Principal, South High, Columbus, Ohio.
Barrett, Richard C., Professor, Ames, Iowa.
Barto, D. O., Instructor, University of Illinois, Urbana, Illinois.
Beardsley, Wilfred F., Principal, Evanston Township High, Evanston, Illinois.
Bell, Hill M., President, Drake University, Des Moines, Iowa.
Beman, W. W., Professor, University of Michigan, Ann Arbor, Michigan.
Benton, George W., Principal, Shortridge High, Indianapolis, Indiana.
Berens, Helmut, Lewis Institute, Chicago, Illinois.
Bevier, Miss Isabel, Professor, University of Illinois, Urbana, Illinois.

Birge, Edward A., Dean, University of Wisconsin, Madison, Wisconsin.

Bliss, Frederick L., Principal, Detroit University School, Detroit, Michigan.

Bolton, Frederick E., Professor, State University of Iowa, Iowa City, Iowa.

Bone, H. A., Superintendent, Sycamore, Illinois.

Bosquet, Maurice L., American School of Home Economics, Chicago, Illinois.

Boyd, W. W., Inspector of Schools, Ohio State University, Columbus, Ohio.

Bray, George E., New Township High, Kenilworth, Illinois.

Bridgman, G. H., President, Hamline University, St. Paul, Minnesota.

Briggs, C. P., Principal, West Aurora High, Aurora, Illinois.

Brookfield, A. D., Muskegon High and Hackle Normal Training School, Muskegon, Michigan.

Brown, Edwin P., Principal, Maryland Academy, Beaver Dam, Wisconsin.

Brown, H. E., Principal, Rock Island High, Rock Island, Illinois.

Brown, J. S., Principal, Joliet Township High, Joliet, Illinois.

Bryan, W. J. S., Principal, Central High, St. Louis, Missouri.

Bryan, Mrs. W. J. S., St. Louis, Missouri.

Bryan, William L., President, University of Indiana, Bloomington, Indiana.

Buck, B. F., Lake View High, Chicago, Illinois.

Buswell, Clara, L., Principal, Polo High, Polo, Illinois.

Cable, J. E., Harvey, Illinois.

Caldwell, Otis W., Professor, University of Chicago, Chicago, Illinois.

Carman, George N., Director, Lewis Institute, Chicago, Illinois.

Carr, J. W., Superintendent, Dayton, Ohio.

Cary, C. P., State Inspector of Schools, Madison, Wisconsin.

Church, H. V., Principal, John Sterling Morton High, Clyde, Illinois.

Clark, A. L., Des Moines, Iowa.

Clark, Thomas Arkle, Dean, University of Illinois, Urbana, Illinois.

Clum, G. V., Superintendent, Earlville, Illinois.

Collie, George L., Dean, Beloit College, Beloit, Wisconsin.

Cook, John W., President, Northern Illinois Normal School, DeKalb, Illinois.

Cooper, C. George, Hinsdale, Illinois.

Coville, Roy L., Township High, Harvey, Illinois.

Coy, E. W., Principal, Hughes High, Cincinnati, Ohio.

Crossland, George M., Instructor, Township High, Harvey, Illinois.

Downey, John F., Professor, University of Minnesota, Minneapolis, Minnesota.

Duvall, J. G., Ohio Wesleyan University, Delaware, Ohio.

Eaton, Edward D., President, Beloit College, Beloit, Wisconsin.

Ehrman, S. W., Principal, Decatur High, Decatur, Illinois.

Elliff, D. J., Inspector, University of Missouri, Columbia, Missouri.

Elson, W. H., Superintendent, Cleveland, Ohio.

Ensign, Forest C., State University of Iowa, Iowa City, Iowa.

Fischer, Augustus R., Englewood High, Chicago, Illinois.

Fisk, Herbert F., Evanston, Illinois.

Foerste, August F., Steele High, Dayton, Ohio.

Fordyce, Charles, Dean, University of Nebraska, Lincoln, Nebraska.

Frost, Henry Hoag, President, Grand Prairie Seminary, Onarga, Illinois.

Froula, V. K., Principal, Central High, St. Paul, Minnesota.

Gault, F. B., President, Vermillion, South Dakota.

German, W. L., Superintendent, Polo, Illinois.

Giles, H. E., Principal, Hinsdale High, Hinsdale, Illinois.

Goble, W. L., Principal, Elgin High, Elgin, Illinois.

Goodier, F. T., Bloomington High, Bloomington, Illinois.

Gorrell, Harry R., Bloomington High, Bloomington, Illinois.

Grant, W. S., Acting Dean, Northwestern University, Evanston, Illinois.

Greeson, W. A., Superintendent, Grand Rapids, Michigan.

Greene, Everts B., Dean, University of Illinois, Urbana, Illinois.

Gulliver, Miss Julia H., President, Rockford College, Rockford, Illinois.

Gurney, Charles Henry, Professor, Hillsdale College, Hillsdale, Michigan.

Hall, Edward J., Calumet, Michigan.

Hamsher, Frank, Principal, Smith Academy, St. Louis, Missouri.

Harris, Edward L., Principal, Central High, Cleveland, Ohio.

Hart, Joseph K., Professor, University of Chicago, Chicago, Illinois.

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Hatfield, James Taft, Professor, Northwestern University, Evanston, Illinois.

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Hill, Thomas C., Principal, Curtis High, Chicago, Illinois.
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Holland, E. O., Bloomington, Indiana.
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Hunt, Miss Caroline, University of Wisconsin, Madison, Wisconsin.
James, Edmund J., President, University of Illinois, Urbana, Illinois.
James, J. A., Professor, Northwestern University, Evanston, Illinois.
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Johnson, W. H., University High School Inspector, University of Kansas, Lawrence, Kansas.
Jolly, A. T., Evanston, Illinois.
Jones, George M., Secretary, Oberlin College, Oberlin, Ohio.
Jones, J. C., Dean, University of Missouri, Columbia, Missouri.
Jones, Miss Jessie Louise, Assistant Professor, Lewis Institute, Chicago, Illinois.
Kendall, Miss Marion A., Marshall High, Chicago, Illinois.
Kerr, David R., President, Westminster College, Fulton, Missouri.
King, Henry Churchill, President, Oberlin College, Oberlin, Ohio.
King, Wm., Professor, Cornell College, Mt. Vernon, Iowa.
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Kirk, John R., President, State Normal School, Kirksville, Missouri.

Lancaster, E. G., President, Olivet College, Olivet, Michigan.

Leavenworth, W. S., Professor, Olivet College, Olivet, Michigan.

Lee, L. B., Oak Park, Illinois.

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Mackenzie, David, Central High, Detroit, Michigan.

MacLean, George E., President, State University of Iowa, Iowa City, Iowa.

MacLeod, Miss Mary L., Cornell College, Mount Vernon, Iowa.

McAfee, Lowell M., Professor, Parkville, Missouri.

McClelland, Thomas, President, Knox College, Galesburg, Illinois.

Main, J. H. T., President, Iowa College, Grinnell, Iowa.

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Plass, Norman, President, Washburn College, Topeka, Kansas.

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Sallmon, Wm. H., President, Carleton College, Northfield, Minnesota.

Sargent, Edward, Bloom Township High, Chicago Heights, Illinois.

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Shelton, Charles Eldred, President, Simpson College, Indianola, Iowa.

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Wright, H. C., J. Sterling Morton High, Clyde, Illinois.

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Zapf, A. E. Secretary, American School of Correspondence, Chicago, Illinois.

Ziegler, W., Principal, Riverside High, Riverside, Illinois.

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APPENDIX TO THE PROCEEDINGS OF THE THIRTEENTH ANNUAL MEETING OF THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE NORTH CENTRAL STATES

1908

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# REPORT

OF THE

# Commission on Accredited Schools and Colleges

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PUBLISHED BY THE ASSOCIATION

1908

## NOTICE.

The following pages form part of the Proceedings of the Thirteenth Annual Meeting of the North Central Association of Colleges and Secondary Schools. The price of this volume of the Proceedings entire is twenty-five cents. The price of the Appendix, printed separately, is ten cents. Copies of either may be obtained by addressing the Treasurer of the Association, Principal J. E. Armstrong, Englewood High School, Chicago.

# THE COMMISSION ON ACCREDITED SCHOOLS AND COLLEGES.

The Commission on Accredited Schools of the North Central Association of Colleges and Secondary Schools was organized at the Sixth Annual Meeting of the Association held in Chicago in March, 1901.

The first annual report* of the Commission was adopted by the Association March 28th, 1902. The duty of preparing a list of accredited schools was assigned to a committee of the Commission known as the Board of Inspectors. The Board prepared its first list of schools in 1904. The list is revised yearly and printed at the time of the Annual Meeting of the Association. In 1906 standing committees, consisting of two members from each of the states, one representing the college and the other the secondary school, were appointed on definitions of units, to make such revisions and additions as may, from time to time, be necessary. At the same time the name of the Commission was changed to read "The Commission on Accredited Schools and Colleges," and the Commission was instructed to report at the next annual meeting on the advisability of adopting a plan for the inspection of colleges and universities and the standardizing of their work. A committee of the Commission consisting of the Chairman, the Vice-Chairman, and the Secretary, was appointed to prepare and present to the Commission a plan for inspecting and accrediting colleges. A report of the committee was presented in 1908, and the As-

*Printed in the Proceedings of the Seventh Annual Meeting of the Association, also separately as an Appendix.

sociation voted that the Commission should undertake the work of inspecting and accrediting colleges and universities, but the plan presented was referred back to the Commission for further consideration.

The Commission, as now constituted, is as follows:

OFFICERS.

*Chairman,* President George E. MacLean, Iowa State University.

*Vice-Chairman,* President James H. Baker, University of Colorado.

*Secretary,* Director George N. Carman, Lewis Institute, Chicago.

APPOINTED FOR 1906-1909.

President Harry Pratt Judson, University of Chicago.

Professor E. O. Holland, Indiana University.

Superintendent A. F. Nightingale, Chicago.

Principal George W. Benton, Shortridge High School, Indianapolis.

APPOINTED FOR 1907-1910.

President James H. Baker, University of Colorado.

Professor F. G. Hubbard, University of Wisconsin.

Inspector A. S. Whitney, University of Michigan.

Principal E. L. Harris, Central High School, Cleveland.

APPOINTED FOR 1908-1911.

President George E. MacLean, State University of Iowa.

President John R. Kirk, Normal School, Kirksville, Mo.

Director George N. Carman, Lewis Institute, Chicago.

Principal F. L. Bliss, University School, Detroit.

ADDITIONAL MEMBERS.

A delegate member may be appointed by each college or university belonging to the Association which has a freshman class of at least fifty members. The chair shall also appoint a sufficient number of members from the secondary

schools to maintain a parity of representation as between the secondary schools and the colleges.

At a meeting of the Commission held immediately after the adjournment of the Association, March 28, 1908, the following committees were appointed:

Committee on Standards of Colleges and Universities: President MacLean, President Baker, Director Carman, President King of Cornell College, Iowa, and Principal Bliss, of Detroit University School.

Committee on Definition of Units: Principal Harris of Cleveland Central High School, President Hughes of Ripon College, Inspector Aiton of Minnesota, Principal Benton of Shortridge High School, Indianapolis, and Director Carman.

## DEFINITIONS OF UNIT COURSES OF STUDY.

### UNIT COURSES IN GENERAL.

1. A unit course of study is defined as a course covering a school year of not less than thirty-six weeks, with four or five periods of at least forty-five minutes each per week.

2. The graduation requirement of the high school and the entrance requirement of the college shall include fifteen units as above defined.

3. All high school curricula and all requirements for college entrance shall include as constants three units of English and two units of mathematics.

### COLLEGE CREDIT FOR WORK DONE IN SECONDARY SCHOOLS.

1. The Commission favors the general principle that colleges should give advanced credit for secondary school work, when sufficient in amount and quality, done in addition to the fifteen units required for admission.

2. In the opinion of the Commission no advanced college credit should be given for less than one full year of secondary school work in any subject, except so far as half units are specified in the definitions of unit courses, or for any study that is not pursued later than the second year of the high school course.

3. The amount of advanced credit to be awarded in any subject should be determined by the college which the student enters.

## UNIT COURSES IN PARTICULAR SUBJECTS.

### ENGLISH.

COMMITTEE.

F. N. Scott (Chairman), Professor of Rhetoric, University of Michigan.
J. V. Denney, Professor of English and Dean of the College of Arts, Philosophy, and Science, Ohio State University.
J. W. McLane, Principal Lincoln High School, Cleveland, Ohio.
T. A. Clark, Professor of Rhetoric and Dean of Undergraduates, University of Illinois.
H. E. Giles, Principal, High School, Kewanee, Illinois.
W. F. Webster, Principal, East High School, Minneapolis, Minnesota.
H. M. Belden, Professor of English, University of Missouri.
E. M. Hopkins, Professor of Rhetoric and English Language, University of Kansas.
W. W. Stoner, Superintendent of City Schools, York, Nebraska.
F. G. Hubbard, Professor of the English Language, University of Wisconsin.
H. E. Coblentz, Head of the Department of English, South Division High School, Milwaukee, Wisconsin.
W. L. Cochrane, Superintendent of City Schools, Aberdeen, South Dakota.
C. F. Ansley, Professor of English, State University of Iowa.
G. P. Koebel, Teacher of English in High School, Clinton, Iowa.
B. F. Kizer, Director of English, Manual Training High School, Kansas City, Missouri.
E. S. Parsons, Dean of Department of Liberal Arts, Colorado College.
W. M. Shafer, Superintendent of Schools, Cripple Creek, Colorado.

*Definitions* (3 units).

The three units in English should cover the following subjects:

(a) *Grammar.* The student should have a sufficient knowledge of English grammar to enable him at need to point out the syntactical structure of any sentence which he encounters in the prescribed reading. He should also be able to state intelligently the leading grammatical principles when he is called upon to do so. Whether this knowledge is obtained in the elementary school and the secondary school combined or only in the elementary school is immaterial, provided the student have it; but in most cases it cannot be acquired except through regular study and practice in the lower grades and occasional reviews in the higher, and scarce through these. A progressive and regular development of the grammar-sense from the lowest grades to the highest is much to be preferred to a sudden and unprepared-for injection of formal grammar at a particular stage, as, for example, in the eighth grade.

(b) *Reading.* The books prescribed by the Joint Committee on Uniform Entrance Requirements in English form the basis for this part of the work. It is expected that all students shall read these books intelligently and appreciatively, but it is important to understand that the list is prescribed neither as a maximum nor as a minimum requirement. Rather these books are intended to serve as a common center from which each school shall proceed with such wider courses of English study as it may find profitable. It is taken for granted that each school will arrange for a considerable amount of outside reading supplementary to the prescribed readings.

The list, as arranged by the Joint Committee on Entrance Requirements in English, is divided into two parts, the first consisting of books to be read with attention to their

contents rather than to their form, the second consisting of books to be studied thoroughly and minutely. The lists, thus divided, are as follows:

I. BOOKS PRESCRIBED FOR READING.

For 1909, 1910, and 1911 ten books, selected as prescribed below from the following list:

Group I (two to be selected).

Shakespeare's *As You Like It, Henry V, Julius Cæsar, The Merchant of Venice, Twelfth Night.*

Group II (one to be selected).

Bacon's *Essays;* Bunyan's *The Pilgrim's Progress, Part I; The Sir Roger de Coverly Papers* in the Spectator; Franklin's *Autobiography.*

Group III (one to be selected).

Chaucer's *Prologue;* Selections from Spenser's *Fœrie Queene;* Pope's *The Rape of the Lock;* Goldsmith's *The Deserted Village;* Palgrave's *Golden Treasury* (*First Series*), *Books II and III,* with especial attention to Dryden, Collins, Gray, Cowper and Burns.

Group IV (two to be selected).

Goldsmith's *The Vicar of Wakefield;* Scott's *Ivanhoe, Quentin Durward;* Hawthorne's *The House of the Seven Gables;* Thackeray's *Henry Esmond;* Mrs. Gaskell's *Cranford;* Dickens' *A Tale of Two Cities;* George Eliot's *Silas Marner;* Blackmore's *Lorna Doone.*

Group V (two to be selected).

Irving's *Sketch Book;* Lamb's *Essays of Elia;* De Quincey's *Joan of Arc* and *The English Mail Coach;* Carlyle's *Heroes and Hero Worship;* Emerson's *Essays* (Selected); Ruskin's *Sesame and Lilies.*

Group VI (two to be selected).

Coleridge's *The Ancient Mariner;* Scott's *Lady of the*

*Lake;* Byron's *Mazeppa* and *The Prisoner of Chillon;* Palgrave's *Golden Treasury (First Series), Book IV,* with special attention to Wordsworth, Keats and Shelley; Macaulay's *Lays of Ancient Rome;* Poe's *Poems;* Lowell's *The Vision of Sir Launfal;* Arnold's *Sohrab and Rustum;* Longfellow's *The Courtship of Miles Standish;* Tennyson's *Gareth and Lynette, Lancelot and Elaine,* and *The Passing of Arthur;* Browning's *Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Evelyn Hope, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, The Boy and the Angel, One Word More, Hervé Riel, Pheidippides.*

II. BOOKS PRESCRIBED FOR STUDY AND PRACTICE.

For 1909, 1910, and 1911: Shakespeare's *Macbeth;* Milton's *Lycidas, Comus, L'Allegro,* and *Il Penseroso;* Burke's *Speech on Conciliation with America,* or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration;* Macaulay's *Life of Johnson,* or Carlyle's *Essay on Burns.*

Changes for the year 1912:

1. Tennyson's *Gareth and Lynette, Lancelot and Elaine,* and *The Passing of Arthur* are inserted in the list of Books for Study as an alternative to Milton's poems.

2. *Lycidas* is dropped from the list of Milton's poems.

3. In group VI of the Reading List, Tennyson's *Princess* is substituted for the *Idylls* transferred to the Study List.

4. In Group V, Carlyle's *Heroes and Hero Worship* is changed to Carlyle's *The Hero as Poet, The Hero as Man of Letters,* and *The Hero as King.*

5. The number of books to be selected in Group V is changed from two to one.

6. In Group III (Book I), is substituted for (Selections) from *Fœrie Queene.*

7. In the preliminary statement of the requirement for

Reading and Practice, nine is substituted for ten as the number of books to be offered for examination.

With reference to the second list, the Joint Committee recommends that each of the books prescribed for study be taught with reference to subject matter, form and structure; and that, in addition, attention be given to the essentials of English grammar and to the leading facts in those periods of English literary history to which the prescribed works belong.

The above lists and requirements are intended to indicate in a general way the extent and character of the required work, and are not to be interpreted as limitations upon the teacher's choice. Books of equal merit, covering a similar range of literary types, will meet the requirements satisfactorily.

(*c*) *Composition.* Regular and persistent training in both written and oral composition should be given throughout the entire school course. In the high school, instruction in this subject should not be broken up into term or semester courses, but should be regarded as continuous throughout the four years. As regards the subjects for composition, they should be taken in the high school course partly from the list of books prescribed for study and practice, or from other literature which the class may read; partly from the student's own thought and experience. The topics should be so chosen as to give practice in the four leading types of prose discourse, namely, Description, Narration, Exposition and Argument.

(*d*) *Rhetoric.* It is expected that the student will be familiar with the essential principles of rhetoric. The instruction in this subject should begin early in the high school course in connection with the work in composition, and should include the following particulars: choice of words; structure of sentences and paragraphs; the principles of narration, description, exposition and argument. The

teacher should distinguish between those parts of rhetorical theory which are retained in text-books merely through the influence of tradition and those which have direct bearing upon the composition work. The former may be safely omitted.

A thorough revision of the requirements in English is planned in 1909.

## MATHEMATICS.

COMMITTEE.

C. E. Comstock (Chairman), Professor of Mathematics, Bradley Polytechnic Institute, Peoria, Illinois.
H. Hancock, Professor of Mathematics, University of Cincinnati.
J. L. Markley, Junior Professor of Mathematics, University of Michigan.
A. Darnell, Head of Department of Mathematics, Central High School, Detroit, Mich.
H. E. Slaught, Assistant Professor of Mathematics, University of Chicago.
J. F. Downey, Professor of Mathematics and Dean of the College of Science, Literature and Arts, University of Minnesota.
W. A. Bartlett, Principal High School, Winona, Minnesota.
E. R. Hedrick, Professor of Mathematics, University of Missouri.
I. I. Cammack, Principal Central High School, Kansas City, Missouri.
E. B. Skinner, Assistant Professor of Mathematics, University of Wisconsin.
A. L. Candy, Professor of Mathematics, University of Nebraska.
A. R. Congdon, Principal of High School, Fremont, Nebraska.
H. B. Newson, Professor of Mathematics, University of Kansas.
A. M. Bogle, Teacher of Mathematics, Kansas City (Kansas) High School.
G. W. Nash, President Northern Normal and Industrial School, Aberdeen, South Dakota.
J. D. Harlor, Head of Department of Mathematics, East High School, Columbus, Ohio.
S. W. Reaves, Professor of Mathematics, University of Oklahoma.
Florian Cajori, Dean of School of Engineering, Colorado College.
E. L. Brown, Principal, North Side High School, Denver, Colorado.

*Definitions* (4 units).

In mathematics the commission adopts the statement of the College Entrance Examination Board, except that a somewhat smaller portion in algebra is assigned to the first year, and a review of essentials is recommended in connection with the advanced course in algebra.

1. *Algebra.* The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents. Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations.

2. *Plane Geometry,* including the solution of simple original exercises and numerical problems.

3a. *Algebra.* A review of the essentials to be followed by ratio and proportion, and the binomial theorem for positive integral exponents. The progressions, the elementary treatment of permutations and combinations, and the use of four and five place tables of logarithms.

3b. *Solid Geometry,* including properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids and the regular solids, of cylinders, cones and spheres, of spherical triangles, and the measurement of surfaces and solids.

4a. *Algebra.* Undetermined coefficients, the elementary treatment of infinite series, the binomial theorem for fractional and negative exponents, and the theory of logarithms.

Determinants, and the elements of the theory of equations, including Horner's method for solving numerical equations.

4b. *Trigonometry.* Plane Trigonometry, including the definitions and relations of the six trigonometrical functions as ratios, proof of important formulæ, theory of logarithms and use of tables, solution of right and oblique plane triangles. Spherical Trigonometry, including the proof of important formulæ and the solution of right and oblique spherical triangles with the proper interpretation of the ambiguous cases.

The colleges make no formal entrance requirement in arithmetic, but presuppose a thorough training in this subject—the four fundamental operations with whole numbers, decimal and common fractions, percentage and its simple applications—as antecedent to the formal study of geometry and algebra. In connection with the latter subjects the facility in computation gained in arithmetic should be exercised and strengthened; these subjects, on the other hand, round out the work of arithmetic and make possible a more careful proof of its theory. The aspect of algebra as generalized arithmetic should be constantly kept in mind, and the theorems of arithmetic contained as special cases in those of algebra should be pointed out, exemplified, and applied in numerical cases. The examinations in algebra and geometry may always and should usually test incidentally the candidate's theoretical and practical knowledge of arithmetic.

In integral connection with arithmetic geometric forms should be studied from the outset, their principal properties being learned by observation and experiment. Informal proofs of a deductive character may be gradually introduced, as the pupils feel, or may be led to feel, the need for such proofs.

Similarly, the advantages of the literal representation of numbers may be gradually made evident and utilized in

the solution of problems, leading to simple equations, and in the compact and clear statement of results (formulæ). Initially the natural literal notations (for number of units of length, etc.) should be used exclusively.

Mathematics owes its genesis largely to the needs of measurement. As in the race, so in the individual, the generalizations, the abstract form should be developed late, though foreshadowed long. From the beginnings of arithmetic to the close of the secondary school at least, the march should always be from the concrete to the abstract. The concrete is itself variable; what is abstract at one stage is quite concrete at another. In the secondary school, many concrete starting points for mathematical work are to be found in the physical sciences; for algebra the specific numerical relations of arithmetic often furnish a concrete basis.

In the secondary school arithmetic, algebra, geometry, and trigonometry should be regarded and treated as different phases of one subject, mathematics, and not as different and mutually exclusive subjects. The geometric, the arithmetical, the algebraic, and the physical phases of mathematics should be presented from the beginning to the end of the secondary school course. To do this best and most freely would require some reshaping of curricula, which should come gradually. But the individual teacher can do much, pending this readjustment, by letting down the barriers, by using geometry in algebra, and algebra in geometry, by concrete physical, graphical, arithmetical work, by free use of whatever material or methods will help towards the main end.

The teacher's constant aim should be to train the pupil to *think*: to observe accurately; to describe accurately in language, in picture, in equation; to make inferences correctly; to act on his inferences; to formulate clearly what

he has done. The pupil's attitude must be, in the main, that of an active worker, not that of a passive listener.

With the systematic restoration of the close relations between mathematics and the physical sciences, so long unnaturally severed in the instruction of the secondary school, it is well to consider the methods of instruction in the physical laboratory. Some of these methods, suitably modified, may be of value also in the instruction in mathematics.

It is desirable that teachers keep themselves informed concerning movements in progress for the improvement of the teaching of mathematical science.

## HISTORY.

COMMITTEE.

J. A. James (Chairman), Professor of History, Northwestern University.
H. E. Bourne, Professor of History, Western Reserve University.
H. V. Hotchkiss, Superintendent of Public Schools, Akron, Ohio.
H. V. Church, Principal, J. Sterling Morton High School, Clyde, Illinois.
D. C. Munro, Professor of European History, University of Wisconsin.
W. C. Howe, Instructor in History, West Division High School, Milwaukee, Wisconsin.
W. M. West, Professor of History, University of Minnesota.
H. H. Freer, Professor of Economics and Sociology, Cornell College, Mt. Vernon, Iowa.
N. W. Lambkin, Teacher of History, High School, Clinton, Missouri.
H. W. Caldwell, Professor of American History, University of Nebraska.
Amanda J. Sundeau, Teacher of History, High School, Lincoln, Nebraska.
C. H. Rhodes, Principal, High School, Winfield, Kansas.
W. W. Girton, Teacher of Civics, State Normal School, Madison, South Dakota.
J. S. Ellis, Lake Preston, South Dakota.
J. S. Buchanan, Professor of History, University of Oklahoma.
J. F. Willard, Professor of History, University of Colorado.
M. C. Potter, Superintendent of Schools, Idaho Springs, Colorado.

*Definitions* (4 units).

1. Ancient history, with special reference to Greek and Roman history, and including also a short introductory study of the more ancient nations and the chief events of the early middle ages, down to the death of Charlemagne (814).

2. Mediæval and modern European history, from the death of Charlemagne to the present time.

3. English history.

4. American history, or American history and civil government.

The periods that are here indicated as constituting the four units were recommended by the Committee of Seven of the American Historical Association in their report to the Association in 1899. The full report is published under the title "The Study of History in Schools." It contains suggestions as to various methods of treating these periods, and gives further information likely to be of service to the teacher. A short course of one year in general history of the world has been in a great measure abandoned by the schools, because it does not give the opportunity for the more concrete study and for the training in historical thinking that can be obtained from the more intensive work. The plan of continuing ancient history to the time of Charlemagne or the establishment of the Holy Roman Empire has much to commend it, and is now adopted in many schools. Excellent books have been prepared which will enable the teachers to cover the field, as a whole, satisfactorily. By continuing the study of ancient history down into the early middle ages, a reasonable adjustment of time between the earlier and later periods is secured; and from the purely historical as well as the pedagogical point of view, there is much to be said in favor of connecting Roman history with the later times; the pupil is not left in the confusion of the fallen or the decadent empire. In connec-

tion with a year's work in American history much instruction can be given in civil government; a course dwelling on the development of American political ideals and the actual workings of institutions necessarily gives information concretely of the present governmental forms and methods.

No definite statement need be made concerning the mode of teaching or the apparatus that should be used. But it may be said that the mere learning of a text will not give the preparation that the colleges desire. Happily the time is gone when teachers are inclined to confine their classes to the memorizing of a single text. Some colleges in their entrance examination expect the candidate to present notebooks showing the amount and character of the work done in the schools. It is desirable that notebooks or cards should be kept as a record of the work done. They may contain copious extracts from primary and secondary authorities, references to important material, sketch maps made by the pupils as illustrations of their studies, and informal notes on reading that has been done in connection with the course. Such work is necessary if the historical courses are to give their best educational results. Effort should be made to cultivate the power of handling facts and of drawing proper inductions from data, to develop the faculty of discrimination, to teach the pupils the use of books and how to extract substance from the printed page. The acquisition of information alone can not be the chief aim of any school work; knowledge of how to acquire information and, above all, some skill in putting forth what one knows must always be of more than secondary importance; history therefore should be taught as a disciplinary and educational subject.

The teacher of history in the secondary school should have completed a four year college course or the equivalent. He should have completed courses in history aggregating *at least* twelve hours for one year, including one "intensive"

or "research" course. In the selection of these courses, at least three fields of history represented in the secondary school units should be chosen. It is also strongly recommended that the teacher should have pursued elementary courses in economics and political science.

The school library or an accessible public library should be equipped with at least the following numbers of well-selected books on the different units: Ancient History, 25 volumes; Mediæval and Modern History, each 25 volumes; English History, 50 volumes, and United States History, 75 volumes.

In addition to a good text-book, the pupil should have read in connection with each unit of History, as a minimum, the following amounts of carefully selected collateral material, of which at least one-fourth should be source material: Ancient History, 200 pp.; Mediæval and Modern European History, each 150 pp.; English History, 300 pp.; American History, 350 pp. (It is understood that Civics is additional.) Especial care should be exercised by the teacher in testing the reports on outside reading, to see that the best results are obtained. The pupil should show ability also in map analysis and the completion of outline maps.

The history class-room should contain standard maps and the pupils should have access to good historical atlases. Photographs of historic scenes ought also to constitute a part of the school equipment for the use of the teacher of history.

## LATIN AND GREEK.

COMMITTEE.

E. W. Coy (Chairman), Principal of Hughes High School, Cincinnati, Ohio.
J. H. Drake, Junior Professor of Roman and Latin Languages, University of Michigan.
David Mackenzie, Principal of Central High School, Detroit, Michigan.
W. R. Bridgman, Professor of Greek, Lake Forest College, Lake Forest, Illinois.
J. S. Brown, Superintendent of Township High School, Joliet, Illinois.
M. S. Slaughter, Professor of Latin, University of Wisconsin.
Nora Frye, Teacher of Latin, High School, Stillwater, Minnesota.
J. H. T. Main, President of Iowa College, Grinnell, Iowa.
L. M. McAfee, President of Park College, Parkville, Missouri.
G. E. Barber, Professor of Roman History and Literature, University of Nebraska.
Grace I. Bridge, Head of the Department of Latin, High School, Lincoln, Nebraska.
W. J. Greer, Professor of Latin, Washburn College, Topeka, Kansas.
R. R. Price, Superintendent of City Schools, Hutchinson, Kansas.
A. Strachan, Superintendent of Schools and Principal of High School, Deadwood, South Dakota.
Edward Rissman, Principal of the South Division High School, Milwaukee, Wisconsin.
George Norlin, Professor of Greek, University of Colorado.
A. H. Dunn, Principal of High School, Fort Collins, Colorado.

*Definitions of Latin* (4 units).

In Latin the commission adopts the first two units as defined by the American Philological Association, and the third and fourth units as defined by the College Entrance Examination Board.

1. Latin lessons, accompanied from an early stage by the reading of very simple selections. Easy reading: twenty to thirty pages of consecutive text.

In all written exercises the long vowels should be marked, and in all oral exercises pains should be taken to make the pronunciation conform to the quantities.

The student should be trained from the beginning to grasp the meaning of the Latin before translating, and then to render into idiomatic English; and should be taught to read the Latin aloud with intelligent expression.

2. Selections from Cæsar's Gallic War equivalent in amount to four books; selections from other prose writers, such as Nepos, may be taken as a substitute for an amount up to, but not exceeding, two books.

The equivalent of at least one period a week in prose composition based on Cæsar.

Reading aloud and translating, together with training in correct methods of apprehending the author's meaning, both prepared and unprepared passages being used as material. The memorizing of selected passages.

3, 4. Cicero: Any six orations from the following list, but preferably the first six mentioned:

The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the fourteenth Philippic.

Vergil: The first six books of the Aeneid.

The equivalent of at least one period a week in prose composition based on Cicero.

Note: In place of a part of Cicero an equivalent of

Sallust's Catiline, and in place of a part of Vergil an equivalent of Ovid will be accepted.

*Definitions of Greek* (3 units).

In Greek the definitions of the three units of the Philological Association are adopted.

1. Introductory lessons:

Xenophon's Anabasis (20 to 30 pages).

Practice in reading at sight and in writing Greek.

Systematic study of grammar begun.

2. Xenophon's Anabasis (continued), either alone or with other Attic prose (75 to 120 pages).

Practice in reading at sight, systematic study of grammar, thorough grammatical review, and practice in writing Greek, both based on study of Books I and II of the Anabasis.

3. Homer (2,500 to 4,000 lines); e. g., Iliad, I-III (omitting II, 494-end), and VI-VIII.

Attic prose (33 to 40 pages), with practice in writing Greek; grammar, practice reading at sight.

## GERMAN.

COMMITTEE.

Laurence Fossler (Chairman), Professor of Germanic Languages and Literatures, University of Nebraska.

W. W. Davies, Professor of German, Ohio Wesleyan University.

A. Keifer, Teacher of German, High School, Piqua, Ohio.

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Jessie L. Jones, Assistant Professor of German, Lewis Institute, Chicago.

A. R. Hohlfeld, Professor of German, University of Wisconsin.

Elizabeth A. Waters, Assistant Principal, High School, Fond du Lac, Wisconsin.

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Emilie S. Hamm, Teacher of German, High School, Beatrice, Nebraska.

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Harriet Kemp, Teacher of German, High School, Junction City, Kansas.

Elizabeth Reid, Instructor in German, Huron College, Huron, South Dakota.

Hermine R. König, Instructor in German, North Side High School, Minneapolis, Minnesota.

J. B. Knoepfler, Professor of German, Iowa State Normal, Cedar Falls, Iowa.

Dorothea K. Beggs, Professor of German, University of Denver.

Wilhelmina Mohr, Teacher of German, High School, Denver, Colorado.

*Definitions* (4 units).

1. During the first year the work should comprise:

(1) Careful and persistent drill upon connected pronunciation;

(2) The memorizing and frequent repetition of easy colloquial sentences;

(3) Drill upon the rudiments of grammar; viz. upon the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more *usual* strong verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order;

(4) Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression;

(5) The reading of from 50 to 100 pages of graduated texts from a reader or other text, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English). Besides parts of Readers available for first year's class-work, good selections may be made from Müller und Wenckebach's Glück Auf; Kern's (Grimm's) German Stories Retold; Guerber's Märchen and Erzählungen; Seeligmann's Altes and Neues.

It will be found, however, that the work as outlined in the above, can be done successfully only when the students of the class are either fairly mature (say, in the 11th or 12th grade), or have had some previous language training. It is only to such that the full reading requirements can profitably be made to apply as a part of the first year's work. ***The chief consideration is thoroughness and accuracy, is to put the student upon firm and sure ground, and never to give up what has already been gained.***

2. During the second year the work should comprise:

(1) The reading of from 150 to 200 pages of suitable texts in the form of easy stories and plays;

(2) Accompanying practice, as before, in the translation into German and easy variations upon the matter read;

(3) Continued drill upon the essentials of the grammar, directed to the ends of enabling the pupil, first, to use his knowledge with facility in the formation of sentences and, secondly, to state his knowledge correctly in the technical language of grammar.

Reading material suitable for the elementary course, other than that already mentioned, can be selected from the following list: Andersen's Märchen and Bilderbuch ohne Bilder; Arnold's Fritz auf Ferien; Baumbach's Die Nonna and Der Schwiegersohn; Gerstaecker's Germelshausen; Heyse's L'Arrabbiata, Das Mädchen von Treppi, Die Blinden; Storm's Immensee and Geschichten aus der Tonne; In St. Jürgen; Auerbach's Brigitta; Keller's Legenden; Fulda's Under vier Augen; Wildenbruch's Der Letzte, or, Das edle Blut; Frommel's Eingeschneit; Seidel's Aus goldnen Tagen; Zschokke's Der zerbrochene Krug; Blüthgen's Das Peterle von Nürnberg.

The net results of the first two years of a high school German course should be:

(a) A correct and ready pronunciation.

(b) A ready, *exact,* and fairly complete working knowledge of grammar, especially on the formal (inflectional) side.

(c) At least some ability to speak and understand the foreign spoken language.

(d) A better understanding of the grammatical structure of the English language.

(e) The reading of some 200-250 pages of suitable texts and the mastery of the fundamental facts of the language involved and illustrated in them.

(f) The acquisition of a fair working vocabulary, involving the full mastery of some 80 per cent of the words occurring in the texts read and worked over.

(g) Ready familiarity with ordinary or common idiomatic phrases or other expressions, such as *es tut mir leid, Sie haben recht, nehmen Sie sich in acht, wo hat er das her?* etc.

(h) The ability to understand and translate (with the help of a vocabulary for uncommon terms) from German into English texts of similar degree of difficulty as the one worked over in class.

In words of one of the high school manuals "The ideals of enabling the student eventually to read German literature in German without translating should be ever before the teacher. . . . . Modern German literature is so rich in novelistic, dramatic, historical, and lyrical productions of a high order that, even for the more elementary classes, good literary selections may be found well suited to the age and preparation of high school students. If this principle be strictly observed, the instruction of German will gain enormously in dignity and interest, and will greatly extend the range of knowledge and culture of the student."

3. The work of the third year should comprise:

(1) A thorough and systematic review of the fundamental facts, the grammar of the language in connection with suitable practice in composition. A text-book, such as Harris', Wesselhoeft's, or Bernhardt's, German Composition, should be used for his purpose. Neither the teacher nor the pupil should trust himself to the process of merely "incidental" grammar and composition exercises. At least two recitation periods per week should be devoted to this purpose.

(2) The reading of some 300-400 pages of moderately difficult prose. A selection may be made from the following texts: Ebner-Eschenbach's Die Freiherren von Gem-

perlein; Freytag's Die Journalisten or his Bilder aus der deutschen Vergangenheit—for example, Karl der Grosse, Aus den Kreuzzügen, Doktor Luther, Aus dem Staat Friedrich's des Grossen; Gerstaecker's Irrfahrten; Meyer's Der Schusz von der Kanzel, Goethe's Hermann und Dorothea, Hoffman's Historische Erzählungen; Lessing's Minna von Barnhelm; Meyer's Gustav Adolf's Page; Moser's Der Bibliothekar; Riehl's Novellen—for example, Burg Neideck; Der Fluch der Schönheit, Der stumme Ratsherr, Das Spielmannskind; Rosegger's Waldheimat; Schiller's Wilhelm Tell, Die Jungfrau von Orleans, Das Lied von der Glocke; Sudermann's Frau Sorge; selections from the poems of Uhland, Heine, Schiller, Goethe, etc., as found e. g. in Hatfield's collection of German Lyrics and Ballads.

4. The work of the fourth year should comprise the reading of about five hundred pages of good literature in prose and poetry, reference readings upon the lives and works of the great writers studied, the writing in German of numerous short themes upon assigned subjects, independent translation of English into German. Favored texts seem to be: Goethe's Sesenheim, Dichtung und Wahrheit, Egmont, Iphigenie; Schiller's Maria Stuart; Lessing's Minna von Barnhelm; Kleist's Michael Kohlhaas, Prinz von Homburg, Fulda's Der Talisman, Grillparzer's Der Traum ein Leben, Sappho, Ludwig's Zwischen Himmel und Erde, Hebbel's Agnes Bernauer, Scheffel's Ekkehard, Hauff's Lichtenstein.

The nature and scope of the fourth year's work may well be left to the direction of the authorities issuing the several high school Manuals, and to those in immediate charge of these advanced courses. It is possible that even here many teachers will feel the necessity of insisting upon the more formal aspects of the problem, others may feel that the advancement and maturity of the class will warrant a sympathetic and systematic study of literature proper.

## FRENCH AND SPANISH.

COMMITTEE.

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C. W. Benton, Professor of French Language and Literature, University of Minnesota.

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Alfred Nonnez, Teacher of French, Walnut Hills High School, Cincinnati, Ohio.

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F. L. Smart, Assistant Superintendent and Principal of High School, Dubuque, Iowa.

Raymond Weeks, Professor of Romance Languages, University of Missouri.

C. C. Ayer, Professor of Romance Languages, University of Colorado.

Emeline Jensen, Assistant Principal, High School, Durango, Colorado.

*Definitions of French* (4 units).

The definitions of the four units in French are those recommended by the Committee of Twelve of the Modern Language Association.

1. During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

2. During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About's *Le roi des montagnes,* Bruno's *Le tour de la France,* Daudet's

easier short tales, La Bedolliere's *La Mère Michel et son chat,* Erckmann-Chatrian's stories, Foa's *Contes biographiques* and *Le Petit Robinson de Paris,* Foncin's *Le pays de France,* Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon,* Legouvé and Labiche's *La cigale chez les fourmis,* Malot's *Sans famille,* Mairet's *La tache du petit Pierre,* Merimee's *Colomba,* extracts from Michelet, Sarcey's *Le siége de Paris,* Verne's stories.

3. This should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

Suitable texts are: About's stories, Augier and Sandeau's *Le Gendre de M. Poirier,* Beranger's poems, Corneille's *Le Cid* and *Horace,* Coppee's poems, Daudet's *La Belle-Nivernaise,* La Brète's *Mon oncle et mon curé,* Madame de Sévigné's letters, Hugo's *Hernani* and *La chute,* Labiche's plays, Loti's *Pêcheur d'Islande,* Mignet's historical writings, Moliere's *L'avare* and *Le Bourgeois Gentilhomme,* Racine's *Athalie, Andromaque,* and *Esther,* George Sand's plays and stories, Sandeau's *Mademoiselle de la Seiglière,* Scribe's plays, Thierry's *Récits des temps mérovingiens.* Thiers' *L'expedition de Bonaparte en Egypte,* Vigny's *La canne de jonc,* Voltaire's historical writings.

4. This should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax. One unit.

Suitable reading matter will be: Beaumarchias's *Barbier de Seville;* Corneille's dramas; the elder Dumas's prose writings; the younger Dumas's *La question d'argent;* Hugo's *Ruy Blas,* lyrics and prose writings; La Fontaine's fa-

bles; Lamartine's *Graziella;* Marivaux's plays; Moliere's plays; Musset's plays and poems; Pellissier's *Mouvement littèraire au XIXe siécle;* Renan's *Souvenirs d'enfance et de jeunesse;* Rousseau's writings; Sainte-Beuve's essays; Taine's *Origines de la France contemporaine;* Voltaire's writings; selections from Zola, Maupassant, and Balzac.

*Definitions of Spanish* (2 units).

In Spanish the commission adopts the definitions of the two units of the College Entrance Examination Board, which are in close harmony with the definitions of French of the Modern Language Association.

1. During the first year the work should comprise (1) careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives and pronouns, and the elementary rules of syntax; (3) exercises containing illustrations of the principles of grammar; (4) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Spanish of easy variations of the sentences read; (5) writing Spanish from dictation.

2. During the second year the work should comprise: (1) the reading of from 250 to 400 pages of modern prose from different authors; (2) practice in translating Spanish into English, and English variations of the text into Spanish; (3) continued study of the elements of grammar and syntax; (4) mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses; (5) writing Spanish from dictation; (6) memorizing of easy short poems.

Suitable texts for the second year are: Valera's *El pajaro verde;* Alarcon's *El final de Norma;* Valdes's *José;* Galdos's *Dona Perfecta, Marianela;* Padre Isla's version of *Gil Blas;* Carrion and Aza's *Zaragueta.*

## PHYSICS.

COMMITTEE.

C. R. Mann (Chairman), Assistant Professor of Physics, University of Chicago, Chicago, Illinois.

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Seth Hayes, Principal of High School, Lancaster, Ohio.

C. W. Greene, Professor of Physics, Albion College, Albion, Michigan.

C. F. Adams, Head of Department of Science, Central High School, Detroit, Mich.

C. H. Smith, Teacher of Physics, Hyde Park High School, Chicago.

C. W. Treat, Professor of Physics, Lawrence University, Appleton, Wisconsin.

H. L. Terry, State Inspector of High Schools, Madison, Wisconsin.

F. S. Jones, Professor of Physics and Dean of the College of Engineering, University of Minnesota.

E. F. Smith, Teacher of Physics, Humboldt High School, St. Paul, Minnesota.

K. E. Guthe, Professor of Physics, State University of Iowa.

S. L. Thomas, Principal, High School, Council Bluffs, Iowa.

O. M. Stewart, Professor of Physics, University of Missouri.

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H. M. Garrett, Teacher of Science in High School, Beatrice, Nebraska.

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A. J. Stout, Teacher of Science in High School, Topeka, Kansas.

L. E. Akeley, Professor of Physics, University of South Dakota.

W. A. Thompson, Superintendent of Public Schools, Webster, South Dakota.

H. A. Howe, Dean and Professor of Anatomy and Applied Science, University of Denver.

Carleton Aylard, Teacher of Physics, High School, Colorado Springs.

John Dewey, Professor of Philosophy, Columbia University, New York.

Paul H. Hanus, Professor of the History and Art of Teaching, Harvard University, Cambridge, Massachusetts.

George H. Mead, Professor of Philosophy, University of Chicago, Chicago, Illinois.

M. Vincent O'Shea, Professor of the Science and Art of Education, University of Wisconsin, Madison, Wisconsin.

*Definition* (1 unit).

1. The unit in physics consists of at least one hundred and eighty periods of forty-five minutes each (equal to 135 hours) of assigned work. Two periods of laboratory work count as one of assigned work.

2. The work consists of three closely related parts; namely, class work, lecture-demonstration work, and laboratory work. At least one-fourth of the time shall be devoted to laboratory work.

3. It is very essential that double periods be arranged for the laboratory work.

4. The class work includes the study of at least one standard text.

5. In the laboratory, each student shall perform at least thirty individual experiments, and keep a careful note-book record of them. Twenty of these experiments must be quantitative; each of these must illustrate an important physical principle which is one of the starred topics in the syllabus of required topics, and no two must illustrate the same principle.

6. In the class work the student must be drilled to an understanding of the use of the general principles which make up the required syllabus. He must be able to apply these principles intelligently to the solution of simple, practical, concrete problems.

7. Examinations will be framed to test the student's understanding of and ability to use the general principles in the required syllabus, as indicated in 6.

8. The teacher is not expected to follow the order of topics in the syllabus unless he wishes to do so.

*Syllabus of Required Topics.*

This list of required topics is not intended to include all the material for the year's work. It is purposely made short, in order that each teacher may be free to supplement

it in a way that fits his individual environment. It does include those topics which all agree are essential to a first course in physics, and which are capable of comprehension, at least to the extent specified in number 6 of the definition of the unit, by boys and girls of high school age.

*1. Weight, center of gravity.
*2. Density.
*3. Parallelogram of forces.
4. Atmospheric pressure; barometer.
*5. Boyle's law.
6. Pressure due to gravity in liquids with a free surface; varying depth, density, and shape of vessel.
*7. Buoyancy; Archimedes' principle.
*8. Pascal's law; hydraulic press.
9. Work as force times distance, and its measurement in foot-pounds and gram-centimeters.
10. Energy measured by work.
*11. Law of machines: work obtained not greater than work put in; Efficiency.
*12. Inclined plane.
*13. Pulleys, wheel and axle.
*14. Measurement of moments by the product of force times arm; Levers.
15. Thermometers: Fahrenheit and Centigrade scales.
16. Heat quantity and its measurement in gram calories.
*17. Specific heat.
*18. Evaporation; heat of vaporization of water.
*19. Dew point; clouds and rain.
*20. Fusion and solidification; heat of fusion.
21. Heat transference by conduction and convection.
22. Heat transference by radiation.
23. Qualitative description of the transfer of energy by waves.

24. Wave length and period of waves.
25. Sound originates at a vibrating body and is transmitted by waves in air.
*26. Pitch and period of sound.
*27. Relation between the wave length of a tone and the length of a string or organ pipe.
*28. Resonance.
29. Beats.
30. Rectilinear propagation of light; pin-hole camera.
*31. Reflection and its laws; image in a plane mirror.
*32. Refraction, and its use in lenses; the eye, the camera.
*33. Prisms and dispersion.
34. Velocity of light.
35. Magnetic attractions and repulsions.
*36. Field of force about a magnet.
37. The Earth a magnet; compass.
38. Electricity by friction.
39. Conductors and insulators.
*40. Simple galvanic cell.
*41. Electrolysis; definition of the Ampere.
*42. Heating effects; resistance; definition of the Ohm.
*43. Ohm's law; definition of the volt.
*44. Magnetic field about a current; electromagnets.
*45. Electromagnetic induction.
*46. Simple alternating current dynamo of one loop.
*47. Electromagnetic induction by breaking a circuit; primary and secondary.
48. Conservation of energy.

## CHEMISTRY.

COMMITTEE.

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B. Dales, Professor of Chemistry, University of Nebraska.

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*Definition* (1 unit.)

Chemistry is an art as well as a science. Acquaintance with its elements includes ability to *do* certain things *intelligently* as well as remembrance of the bare results of chemical changes. An organized account of the latter is only a sort of dessicated residuum if it is not illuminated by the experience acquired along with skill in the former. The books usually—and necessarily—give prominence to the second (the systematic aspect), leaving instruction in the art to the teacher. A requirement in chemistry, on the other hand, must emphasize the art, for it is universal. It will lay less stress on any particular list of substances, reactions, or topics, in view of the extent of the available material, the briefness of the school course and the consequent differences between equally good individual selections. The art cannot, of course, be acquired without a fair systematic knowledge, while a semblance of the systematic knowledge may be acquired without the art. The art is therefore more worthy of emphasis.

It will be noted that the art of chemistry consists in the practical knowledge of the physical properties of all kinds of matter and the utilization of this knowledge in arranging intelligently the conditions before chemical change, in noting all physical indications during experiment and distinguishing the significant ones, and in interpreting the result of this observation. It thus deals almost exclusively with physical conceptions and facts. It demands, therefore, a careful training in physical facts, physical observation and physical inference. Conventionalized chemical work which can progress without skill in this art (for example, reiterated observation of precipitations) is valueless.

Disregarding questions of order, and simply classifying the essential principles of instruction, the pupil should be taught:

1. *Technique of experimentation.*

   Properties of common apparatus in respect to structure and material. For example, how to make an apparatus air-tight and why. Object of such operations as washing and drying gases and how the object is attained.

   Physical properties which may be used for recognition of each substance and for explanation of all observations.

   Judicious use of proportions and materials. Influence of conditions (temperature, homogeneous and heterogeneous mixture, etc.) on chemical change.

2. Physical phenomena, their recognition, description, and physical interpretation.

3. The more strictly *chemical application* of the results. For example, inference in regard to the nature of the chemical change which must have led to the results observed. Making of the chemical equation from adequate data.

The material basis for the above may be found for the most part in the employment of a restricted number of elements and a few of their chief compounds. Facts should be simplified and systematized by generalization, and generalizations ("laws") should be illustrated and applied to familiar things. The usual theoretical explanations should be given as the facts accumulate. Laws and theories derive their importance from the facts, not *vice versa*, and none should be given unless and until the corresponding facts have been encountered in laboratory or class-room experiments.

A knowledge of important chemical industries and ability to work simple problems will be expected.

## PHYSICAL GEOGRAPHY.

COMMITTEE.

C. E. Peet (Chairman), Assistant Professor of Physiography, Lewis Institute, Chicago.

G. D. Hubbard, Assistant Professor of Geology, Ohio State University.

A. F. Foerste, Teacher of Science, Steele High School, Dayton, Ohio.

C. A. Jewell, Jr., Teacher of Science, Central High School, Grand Rapids, Mich.

W. W. Atwood, Instructor in Physiography and Geology, University of Chicago.

G. L. Collie, Professor of Geology and Dean, Beloit College, Beloit, Wisconsin.

C. W. Hall, Professor of Geology and Mineralogy, University of Minnesota.

W. H. Norton, Professor of Geology, Cornell College, Mt. Vernon, Iowa.

H. H. Savage, Superintendent of Schools, East Waterloo, Iowa.

C. F. Marbut, Professor of Geology and Mineralogy, University of Missouri.

P. Graves, Teacher of Physical Geography and Geology, Central High School, Kansas City, Missouri.

W. L. Enfield, Teacher of Science, High School, Wichita, Kansas.

E. C. Perisho, Professor of Geology of University of South Dakota, and State Geologist.

G. E. Condra, Professor of Geography and Economic Geology, University of Nebraska.

F. H. Hoff, Superintendent of Schools, Mitchell, South Dakota.

R. D. George, Professor of Geology, University of Colorado.

G. L. Cannon, Teacher of Physiography, East Side High School, Denver, Colorado.

*Definition* (1 unit).

The following outline includes only the most essential facts and principles of physical geography, which must be studied in the class room and laboratory:

THE EARTH AS A GLOBE.

*Shape of earth*: How proved; probable causes of.
*Size*: How measured.
*Rotation*: How proved; day and night; longitude and time; latitude.
*Revolution*: How proved; rate; path; direction.
*Seasons* and their causes.
*Magnetism*: Compass; variation in.
*Map projection* explained.

THE LAND.

*Distribution.* Graphic representation of topography.

*Changes in land areas and in land forms*: Effects of (1) elevation and depression, of (2) deposition of sediments, (3) of shore erosion.

*Plains*: Plains distinguished from the plateaus and mountains. Kinds of plains: classification based on genesis, on topography, on fertility, etc. Development of plains of different forms. Distribution of the great plains of the earth. The coastal plain of the Atlantic and Gulf coasts. The plains of the eastern interior. The plains of the western interior. Effect of climate and rock structure on topography of plains. Alluvial plains: their formation and importance. Relation of life to different forms of plains.

*Plateaus*: Relations to plains and to mountains. Stages in the history of a plateau; young plateaus, dissected plateaus, old plateaus, broken plateaus. Effect of climate, rock structure, etc., on topography of plateaus. Locations of the great plateaus. Life conditions on plateaus.

*Mountains*: Classes: block mountains; folded mountains; domed mountains; massive mountains; mountains of

circumdenudation. History of mountains. Effects of climate, rock structure, etc., on mountain topography. Life conditions in mountains.

*Volcanoes*: Distribution. Phenomena of eruptions. History of a volcano. Influence of volcanoes on topography and life.

*Rivers*: Life history of a river from birth to old age. The work of rivers. The topography of surfaces shaped by river erosion at different stages of valley development. Revived rivers. Drowned rivers and valleys. The great drainage basins of the United States.

*Lakes*: The distribution of lakes, particularly in North America. The changes which they are undergoing. Their relations to rivers. Their effect on climate. Their relations to life in general. Salt lakes; their history. The origin of lake basins.

*Glaciers*: The nature of glacier ice. The distribution of glaciers. The conditions necessary for glaciers. Types of glaciers. The work of glaciers. Glaciated areas compared and contrasted with areas which have not been affected by ice; especially the glaciated and non-glaciated areas of North America.

### THE ATMOSPHERE.

Composition and offices of atmosphere. Instruments used in study of atmosphere.

*Temperature*: Source of atmospheric heat, and variations of atmospheric temperatures. Isothermal charts of world, and of the United States, especially the January, July and annual charts, with special study of (1) isotherms of northern and southern hemispheres, (2) location of heat equator, (3) cold pole, (4) crowded isotherms, etc.

*Pressure*: Measurement of pressure. Determination of altitudes by atmospheric pressure. Relation to temperature. Study of isobars on U. S. weather maps. Distribution of

pressure in general, in mid-winter (January), and in mid-summer (July). Relation of pressure (isobars) and temperature (isotherms).

*Circulation of atmosphere*: Winds; their causes; their classes; and their effects.

*Moisture*: Sources. Conditions for precipitation. Forms of precipitation; rain and snow; dew and frost; distribution of rain and snow; principles governing. Relation of precipitation to life.

*Storms*: Cyclones of temperate and tropical latitudes. Paths and characters of storms of United States. Relation of storms to general weather conditions. Weather at different seasons; study and construction of weather maps. Relation of weather to climate. Relation of climate, weather, etc., to life and to human industries.

THE OCEAN.

Form, divisions and general characteristics of the oceans, and of ocean basins. Depth, density and temperature of ocean waters. Characteristics of ocean floor; topography, material, etc. The life of the oceans.

Movement of ocean waters: Waves; cause and effect. Currents; causes and their proofs; important currents; effects of currents on climate, life, etc. Tides; character of motion; causes of tides; variation of tides, and their causes; bores; effect of tides on navigation, harbors, etc.

*Work of ocean*: Erosion and deposition. Shore lines; the leading types, and their distribution. Influence of harbors and coast lines, now and in the past.

*Summary*. The outline given can but enumerate the larger topics to be covered, and in a way suggest the point of view desired. Each topic should be treated so as to show its causal relations to other topics. So far as possible, the effects of earth features on life (especially human life) conditions should be emphasized.

Throughout the work an effort should be made to develop the student's ability to use the data presented. The acquisition of the facts presented in the text-books is in itself of relatively little value. The student should be taught to apply, out-of-doors and in the laboratory, the principles developed in the class room. When he can do this, and when he can utilize and combine the data presented in the books in new ways and to new ends, one of the chief aims of the study will have been accomplished.

The candidate's preparation should include:

a. The study of one of the leading secondary text-books in physical geography, for the sake of essential principles, and of well-selected facts illustrating those principles.

b. Individual laboratory work should occupy from one-fourth to one-half of the time of the student in the class-room. Field trips should take the place of some of the laboratory work in autumn and spring. The results of laboratory work should be carefully recorded in writing, and in many cases should be made the basis of class-room discussion. Similarly the field work should be made the basis of written reports or of subsequent class-room discussion, or both. In general the laboratory and the field should be made to afford illustrations of as many principles and phenomena as possible.

## BOTANY.

COMMITTEE.

O. W. Caldwell (Chairman), Associate Professor of Botany, University of Chicago.

F. C. Newcombe, Professor of Botany, University of Michigan.

L. Murbach, Head of the Department of Biology, Central High School, Detroit, Michigan.

C. R. Barnes, Professor of Plant Physiology, University of Chicago.

R. A. Harper, Professor of Botany, University of Wisconsin.

M. F. Arey, Professor of Natnral Science, Iowa State Normal School, Cedar Falls, Iowa.

C. E. Bessey, Professor of Botany and Dean, University of Nebraska.

E. A. Bostrom, Superintendent of Schools, Osceola, Nebraska.

Alberta Cory, Teacher of Botany, High School, Kansas City, Kansas.

C. S. Parmenter, Vice President of Baker University, Baldwin, Kansas.

Eloise Butler, Teacher of Botany, South Side High School, Minneapolis, Minnesota.

M. F. Guyer, Professor of Biology, University of Cincinnati.

Francis Remaley, Professor of Biology, University of Colorado.

Ellsworth Bethel, Teacher of Botany, East Side High School, Denver, Colorado.

*Definition* (1 unit).

It is undesirable that the course in Botany should be given earlier than the second year (10th grade), but whenever given it is indispensable that the teacher should adapt the work carefully to the development of the pupils. Inasmuch as Botany is likely to be one of the first sciences studied it is of the utmost importance that the pupil should be guarded against hasty inferences and sweeping generalizations from insufficient data. No experiment should be conducted by him which is not checked by a control, and whenever possible the conditions should be such that only one variable factor marks the difference between the test and the control. Inasmuch as both the simple and the compound microscope must be used he should be shown how to use both to the best advantage. The simple microscope is much neglected. The compound microscope brings an entirely new set of experiences to the pupil and he needs to be taught how to interpret what he sees. When sections of larger objects are furnished him, the teacher should take care that he understands the position of the section with reference to the object from which it was cut. He should be taught by practice to interpret and combine sections so as to obtain a conception in three dimensions of structures seen in two. Drawing, and especially the making of clear diagrams, should be insisted upon, avoiding undue detail and repetition which consume time but illustrate no new structure or form. Well-made diagrams, with details carefully drawn in certain parts, are much more profitable than the most elaborate drawings without correct ideas behind them.

It is not contemplated that the student shall obtain a knowledge of Botany as a science, but that he shall know what plants are, how they work, and how they are related to the external world and to other living things. The objects to be kept in view should be: first, to impart to a stu-

dent through his own observation and reading a conception of the extent and variety of the plant kingdom, relating the groups to one another by a thread of evolution; second, a conception of the ways in which plants "live and move and have their being," by exhibiting them as mechanisms with parts, each doing its own work, and all working together harmoniously because they are sensitive to changes in the surrounding world and because they have power to adapt themselves thereto; third, a conception of the social relations of plants to other plants and to animals, and of the way in which their distribution is determined by all the agents acting upon them. To the laboratory and field work there should be devoted not less than two, and preferably three, double periods per week. It should be accompanied by assigned readings in one or more modern texts, and quizzes, for which two or three single periods per week are needed. When only single periods are given to the course, it should be discretionary with colleges to accept such work as one-half unit.

The general aims and methods of botanical teaching are well set forth in Ganong's "Teaching Botanist," which is commended to the attention of teachers of botany. The teacher who is adequately prepared will be the best judge of the materials and the methods by which in his own school the foregoing objects can be attained. The following suggestions are made as an indication of the amount and character of the work desired. They disregard questions of order. It is especially desirable, for instance, that physiological and ecological work be taken up in connection with the study of the anatomy of the organs with which they are most intimately associated, or with the organisms exhibiting certain relations best; *e. g.*, sterilization and the economic relations of fungi should be presented when the fungi are under examination.

The synoptical view of the great natural groups of plants

should be based upon a study of the structure, reproduction, and adaptations of types from each group. Where living material is not available, preserved material may be used. The evolutionary history of the great groups should be presented as far as it is known. Evolutionary principles may also be illustrated in a study of floral development. The alternation of generations should be traced from its clear development in bryophytes and pteridophytes backward to the hints of it among the algae and forward to its complete disappearance among the angiosperms. In the pteridophytes attention should be devoted to heterospory and to the consequent development of the seed habit in gymnosperms and angiosperms.

In general the simplicity of the lowest plants requires only brief study, and progressively more should be given to the higher and more conspicuous forms, until in the angiosperms detailed study is made of the various organs, and their functions. The following types are suggested, but should be changed to suit local conditions:

ALGAE: Pleurococcus, Nostoc, Spirogyra, Cladophora, Vaucheria, Fucus, Nemalion or Polysiphonia or Coleochæte.

FUNGI: Bacteria, Mucor, Yeast, Puccinia or a powdery mildew, Mushroom.

LICHENS: Physcia or Parmelia.

BRYOPHYTES: (Hepaticæ) Radula or Porella or Marchantia; (Musci) Mnium or Funaria or Polytrichum.

PTERIODPHYTES: Aspidium or equivalent, including the prothallus.

GYMNOSPERMS: Pinus.

ANGIOSPERMS: A monocotyledon and a dicotyledon. Examination of the structure and function of the following parts in any convenient species.

*The seed*: Three types (dicotyledon, one without and one with endosperm, and a monocotyledon); structure and homologous parts. Food supply, experimental determination

of its nature. Phenomena of germination and growth of embryo into a seedling (including escape from the seed coats and development of parts).

*The shoot*: Gross anatomy of a foliage shoot, including the relationships of position of leaf, stem (and root), the arrangement of leaves and buds on the stem, and deviations (through light adjustment, etc.) from symmetry. Buds, and the mode or origin of new leaf and stem; winter buds in particular. Annual growth; shedding of bark and leaves.

*Specialized shoots*, including the flower. Comparative study of the parts and their functions in six or more different types, such as the ranunculaceaus, cruciferous, leguminous, convolvulaceous, labrate, composite, liliaceous, and gramineous types. In connection with the study of the flower students should be shown how to discover the names of unknown plants by use of analytic keys and descriptive floras. In general they should be introduced to unknown plants by name.

*The root*: Gross anatomy and general structure of a typical root; position and origin of secondary roots; hair-zone; cap and growing point.

*Specialized roots* of various sorts.

*The fruit*: Comparative study of several types of fruit (dry capsule, legume, nut) and fleshy (pome, berry, drupe, etc.), especially with reference to changes from the flower, and from ovule to seeds.

In connection with the study of anatomy the following physiological topics should be presented:

*Rôle of water in the plant*: Absorption (osmosis), path of transfer, transpiration, turgidity and its mechanical value, plasmolysis.

*Phytosynthesis*: Dependence of starch formation upon chlorophyll, light and carbon dioxid; evolution of oxygen.

*Respiration*: Necessity of oxygen for growth, evolution of carbon dioxid.

*Digestion*: Action of diastase on starch and of lipase on fats.

*Irritability*: Geotropism, heliotropism, etc.; nature of stimulus and response.

*Growth*: Localization and rate in higher plants.

The following ecological topics should receive attention either in connection with the foregoing laboratory work or in special field excursions, for which students should be furnished as careful directions as for laboratory work.

*Adaptations* of parts for special functions.

*Dissemination.*

*Cross-pollination.*

*Light relations* of green tissues; leaf mosaics.

*Plant societies*s Mesophytes, hydrophytes, halophytes, xerophytes, climbers, epiphytes, parasites and saprophytes. Plant associations and zonal distribution.

## ZOOLOGY.

COMMITTEE.

J. Reighard (Chairman), Professor of Zoology, University of Michigan.

E. L. Moseley, Teacher of Science, High School, Sandusky, Ohio.

W. A. Locy, Professor of Zoology, Northwestern University.

F. L. Charles, Instructor in Biology, Northern State Normal School, DeKalb, Illinois.

H. D. Densmore, Professor of Botany, Beloit College.

L. Atherton, Head of Department of Biology, High School, Oshkosh, Wisconsin.

H. F. Nachtrieb, Professor of Animal Biology, University of Minnesota.

H. W. Norris, Professor of Zoology, Iowa College, Grinnell, Iowa.

J. A. Anderson, Head of Department of Biology, High School, Dubuque, Iowa.

L. E. Griffin, Professor of Biology, Missouri Valley College, Marshall, Missouri.

J. W. Scott, Teacher of Biology, Westport High School, Kansas City, Missouri.

Caroline E. Stringer, Head of Department of Biology, High School, Omaha, Nebraska.

A. Pihlblad, Professor of Biology, Bethany College, Lindsborg, Kansas.

C. E. Johnson, Teacher of Science, Sumner County High School, Wellington, Kansas.

C. P. Lommen, Professor of Biology, University of South Dakota.

G. D. A. Cockerell, Professor of Systematic Botany, University of Colorado.

A. E. Beardsley, Professor of Biology, State Normal School, Greeley, Colorado.

*Definition* (1 unit).

A high school course in Zoology should have for its objects: (1) To acquaint the student with the common animals of his own neighborhood, with the various environments of these animals, with the structural adaptations which the animals show to their environment and with their habits and economic importance. (2) To afford training in critical methods of making and recording observations both by drawing and by writing, both in the laboratory and in the field. (3) To teach enough of the interpretation of the observed facts that the student may understand the current methods of interpretation from the morphological, physiological, and ecological standpoints. In other words, with the study of the structures there should go an interpretation of their use (physiology, ecology) and of their past history (evolution). An elementary training in both experimental and comparative methods should be sought, and the peculiar value of such training as a means of intellectual development should not be overlooked. Ability on the part of the student to observe and think independently is especially desired.

For a course extending through the year with four periods per week, it is recommended that the laboratory and field work consist of the study of at least ten type forms to be selected from the following lists:

1. An insect.
2. The crayfish.
3. An earthworm, leech, or fresh water oligochaete.
4. An Amoeba or other protozoan.
5. Hydra or a hydroid.
6. A mussel or snail.
7. A fish.
8. A frog, or turtle.
9. A bird.
10. A mammal.

The animal to be taken as the type under each head may be selected by the teacher and will vary with the locality. It will usually be most convenient to begin with insects in the fall and to take up birds before the spring migration and mammals later in the spring. The order in which the other forms are taken up may vary according to convenience. In the above list the crayfish and the earthworm have been placed after the insect in order to bring like forms together. Those who find difficulty in beginning with a form as small as the grasshopper may prefer to spend the first two weeks on the crayfish, but any considerable delay in taking up insects in the fall should be avoided. The other forms are arranged in the usually accepted logical order which is preferred by most teachers. If, for practical reasons, it is deemed best to depart from this order, it will be found that the idea of evolution may be taught with quite as much force from material within the individual groups as by an adherence to the so-called logical order of the groups themselves.

If time permits the teacher may profitably add to the list of types an echinoderm and a sponge, to each of which one or two classes and laboratory periods may be devoted. The student's conception of the animal kingdom is thus greatly broadened.

A suitable laboratory and field equipment is assumed. Its precise character will vary with circumstances. In general the better the equipment the better the work that may be done. While it is true that a course in zoology may be given without the use of the compound microscope, in the opinion of your committee a much better course may be given by its moderate use.

As far as possible the work on each type should be begun by collecting by the students, chiefly of the type form but incidentally of as many as possible of other forms belonging to the same group. Some of the animals collected

should be kept living and the subsequent study should, where practicable, be made on living material. The work on each type should include:

1. *Structure.* The structural work should consist chiefly of external morphology and the structures should be considered as adaptations. It is not intended to eliminate individual dissection, but it is thought that the amount of individual dissection may be much lessened and that internal structures may be studied in part by means of anatomical preparations made by the teacher and by means of models and charts. In connection with each system of organs the special physiology of the system should be taught and should be illustrated by experiments. Physiology should not be taught merely as an inference from structure. The physiological instruction may be profitably concentrated on two types, one invertebrate and one vertebrate, preferably the insect and the frog. By this plan physiological work on other types may be minimized.

2. *Behavior and Habits*: These should be considered in connection with the study of its structure and where practicable the behavior should be studied first and the structures necessary to the behavior considered afterward. It is believed that more interest will be aroused by finding out first what the animal does and then studying the structures which it uses; but it will often be found necessary to reverse this order.

3. *Study of related forms*: It is not meant that the course should be limited to the study of the type forms, but rather that, in each group, the type form should be the basis upon which to build an acquaintance with the commoner related forms in the local fauna. The scientific names and the classification of these forms need not be taught but rather sight recognition of many forms and their common names with a reference of each to the group represented by the laboratory type. Although it is not intended that

taxonomy should be taught, nevertheless individual students who show an aptitude for it should be provided with literature and should receive every encouragement from the teacher to carry on voluntary work in collecting and classifying animals.

4. *Ecology*: Animal ecology includes not only a study of the habits of animals referred to but also a study of the relations of animals to their environment. This branch of zoology, which must be in part carried on in the field, attempts to determine how animals maintain themselves in their environment and why animals in a given environment give place to others when the physical and other characteristics of the environment are altered. Few teachers are prepared to include this subject in their teaching, but attention should be called to the importance of the subject as a constituent part of a high school course in zoology and teachers should prepare themselves to do work of this sort. The amount of such work that may be done in elementary classes is indicated in the specific illustration which follows.

The plan recommended for laboratory and field work may be best made clear by a specific illustration. Thus the work on insects may be begun with the grasshopper with a collecting trip in which each individual student is required to bring into the laboratory as many kinds of grasshoppers as he can obtain, and together with these a certain number of insects belonging to other groups. Each student should then preserve most of the insects in his collection and after sorting them put them aside for future use. In this connection instruction may be given in methods of pinning and preserving insects and encouragement may be given the pupil to make his own collection. Many of the grasshoppers collected should be kept alive and their study now be undertaken. In this study function and structure should, as far as possible be considered in connection with one another. Thus the student may observe the ways of walking,

hopping, and flying, and in connection with these may study on preserved material the structure of the legs and wings. At the same time he may be instructed in the class room and by the aid of models, preparations and diagrams concerning muscles and the movements produced by them. Similarly he may study the use of the mouth parts in feeding and may then observe the structure of the mouth parts in greater detail. From this he may proceed to a study of the structure of the digestive organs either from his own dissections or from preparations and charts. The teacher may then give them elementary instruction concerning the process of digestion. Again observations may be made on the breathing movements to be followed by an anatomical study of the spiracles and tracheae and an exposition of the nature of respiration. Thus in all cases, so far as practicable, close correlation should be made between the work on the function and that on the structure of the various parts of the body.

The work in which the student can actually see the working of the part observed will of course have to be followed by a study of the parts whose function is not so obvious, but the same principle of correlating structure and function may be followed throughout. It is advisable that the work in which the teacher supplies most of the physiological instruction should follow that in which the pupil is able to make his own observations.

The class should next make a comparative study of the different grasshoppers collected so as to be able to distinguish the different species in a second field excursion. When a good conception has been gained of the general structure of the body and of the chief functions of its part, and when a sight recognition of the local species of grasshoppers is assured, attention may be directed to the life of grasshoppers in the field and to the adaptations shown by the various species to their conditions of existence (ecology). To give

an illustration of the nature of the ecological work that may be undertaken advantageously in the high school we may cite the following observations which may easily be made upon the grasshoppers which occur in nearly every neighborhood. The kind of situation should be noted in which each species occurs. The students should observe the relation between these habitats and the species found in them. The instinct of the roadside grasshopper to alight in barren spots of ground and of various species of green coloration to alight on grass stems and to keep on the side opposite the observer. The instinct of other species when alighting in the grass to drop down and remain quiet next the ground. These and many other features of behavior which show a marked adaptation to particular kinds of environment can easily be observed and interpreted. If the teacher directs the attention of the students to such phenomena and by carefully planned questions leads them to make and to record observations of their own, work cannot fail to prove of interest and value. Such work, if properly planned, can be controlled as well as tasks performed in the laboratory.

When the field work on the grasshopper has been completed the class should take up the insects on the first field excursion and should become familiar with the principal groups of insects. At this point attention may be directed to the economic value of certain species. Here, again, opportunity will be afforded to stimulate individual work and the making of collections.

The same plan of work may be followed in considerable detail with the mollusca. In the case of other groups the field work may need to be considerably modified. Thus birds and mammals may not be collected but both may be studied in the field. Protozoa and hydra may be collected but are not, of course, suitable for field study. In the case of each type the plan outlined should be followed in so

far as the nature of the material permits. It is believed that in the laboratory the plan is feasible in nearly every case.

Both laboratory and field work is best carried on by means of written or printed directions prepared by the teacher. Just before each field excursion the teacher should visit the locality selected for the field work in order to be assured that the desired material is available and that the observations outlined are feasible.

The class room instruction should co-ordinate and extend the work done in the laboratory and further interpret it. It is believed that the further work carried on in the class room may be best done by means of topics to be studied in connection with those laboratory types which best illustrate them. Thus in connection with insects protective coloring and mimickry, as well as the general subject of metamorphosis, may be enforced and illustrated. In connection with the frog the development should be studied in the laboratory and general notions of development added to those of metamorphosis. In connection with mollusca variation and the ideas of species may be enforced. Instinct and intelligence may properly be considered in connection with several of the types. Toward the end of the course time should be left for a connected presentation of the doctrine of evolution and of natural selection.

The importance of proper field and laboratory notes and drawings should be emphasized. Notes, both in field and laboratory should be made while the work is in progress, not afterward. They should be criticized by the teacher with reference to their pertinence and completeness and should be permanently preserved. Such notes may be made the basis of more careful reports which should be criticized with a reference to the arrangement of their contents, the character of their conclusions and their English. It is suggested that teachers of English will often be found will-

ing to co-operate in the correction of such reports. Drawing is of no less importance than note taking. Drawings should be made chiefly in the laboratory and always from the specimen. It should be the object of the teacher to see that the drawings are accurate and that their details have meaning. Meaningless or ambiguous lines or masses of shade have no more place in a scientific drawing than meaningless words in a sentence.

Attention should also be called to the importance of local school museums. These should contain primarily representatives of the local fauna attractively displayed. Students may be referred to specimens in such a museum as they are referred to books and may use the museum as they would a library. The Michigan Academy of Sciences maintains a bureau the purpose of which is to secure for teachers and others the identification of specimens collected by them and their exchange for other specimens. Information concerning the bureau may be had from the Secretary of the Academy, Professor Charles E. Marshall, Agricultural College, Mich.

The following recommendations are also made:

1. That the course be put in the second high school year, rather than in the first, and that it be preceded by a course in physiography. Such an arrangement should greatly help the teaching of field ecology.

2. Each week's work should consist of two class exercises and at least two laboratory exercises. Each laboratory exercise should consist of at least two school periods, and these should if possible be the last two periods of the afternoon. By this arrangement it will be possible to use the greater part of the afternoon for field excursion.

3. Where but half a year's work is offered in zoology the teacher should select the groups to be studied. Since the groups do not require equal periods of time, the number

to be studied in a half year's course will depend on the selection. It should not be less than five.

4. Where but a half year's work is offered in zoology, and where at the same time human physiology is taught the zoology should be followed at once by the physiology or the two subjects should be combined into a single course. It is believed that time will be saved by this arrangement and that interest will be added to both subjects.

## COMMERCIAL SUBJECTS.

### COMMITTEE.

E. V. Robinson (Chairman), Professor of Economics and Politics, University of Minnesota.
F. C. Hicks, Professor of Economics and Civics, University of Cincinnati.
D. Kinley, Dean of Graduate School, Director of Courses in Commerce, Professor of Economics, University of Illinois.
H. E. Brown, Principal, High School, Rock Island, Illinois.
M. M. Beddall, Principal, High School, Boone, Iowa.
I. A. Loos, Professor of Political Economy, State University of Iowa.
M. S. Wildman, Assistant Professor of Economics, University of Missouri.
P. B. S. Peters, Director of Business Course, Manual Training High School, Kansas City, Missouri.
G. A. Gregory, Superintendent of Schools, Crete, Nebraska.
N. M. Graham, Principal, High School, South Omaha, Nebraska.
D. T. Walker, President, Watertown Commercial College, Watertown, South Dakota.
B. O. Aylesworth, President, State Agricultural College, Fort Collins, Colorado.
J. A. Hutchinson, Teacher of Commercial Branches, West Side High School, Denver, Colorado.

*Definitions* (7 units).

*Business Arithmetic* (½ unit).

The object is first of all absolute accuracy, and secondly speed, in ordinary business computations. To secure these essentials, not less than half of each recitation should be devoted to mental drill on simple exercises. For the same reason, no credit whatever should be allowed on work involving any error in computation; and a rigid time limit should be set for all written work.

As to subject matter, complicated methods and obsolete subjects should be eliminated. This means cutting out about half of what the books contain. The topics to be *emphasized* are: (1) the fundamental operations with integers; (2) common fractions having as denominators 2, 3, 4, 6, 8, 12, or 16, and small decimals; (3) a few common weights and measures, but not the mass of uncommon ones, nor a mixture of denominations (e. g. no merchant sells cloth by yards, feet and inches, but by yards and fractions thereof); (4) percentage and its more important applications, especially interest and discount; (5) short methods, especially thorough drill in the use of interest and other calculation tables.

Text book, supplemented by numerous live exercises from current sources, such as stores, trade papers, etc. The methods should be planned so as to arouse and sustain interest. "The class work must touch life and breathe the spirit of business."

*Elementary Bookkeeping* (1 unit).

The technical business subjects, especially bookkeeping and stenography are vocational in purpose and must therefore be taught with a view to practical mastery. This fact should suggest and control the method. For example, no credit whatever should be allowed unless the work is done neatly, accurately, and at a satisfactory rate of speed. And there should be a combination of class and individual meth-

ods of instruction to secure maximum results. In order to establish sound habits, it is also well to provide double periods for elementary bookkeeping, and require all work to be done in the class room under the eye of the instructor.

The first requisite is a good, clear business handwriting. Unless pupils have it, which they rarely do, they should be required to do a prescribed amount of practice writing under the supervision of the instructor.

Definitions of double entry terms, with rules for debit and credit, kinds and uses of books. Conduct of a set including the journal, cash book, sales book ledger, check book, bank pass book and trial balance book, closing of books. Single entry set: changing from single to double entry.

Text book, with exercises so arranged that no two pupils will do exactly the same work.

*Advanced Bookkeeping and Business Usage* (1 unit).

Thorough drill on the preparation and interpretation of standard business forms, such as bills, receipts, checks, notes, time and sight drafts, acceptances, endorsements, invoices, accounts sales, deposit tickets, warehouse receipts, express receipts, bills of lading, statements of account, balance sheets, etc.

*Explanation of business symbols and abbreviations.*

Bill book, invoice book, special books, loose leaf and voucher systems of bookkeeping.

Each student is to carry on a business of his own, manufacturing, banking, wholesale, retail, jobbing or commission: at first as an individual, then as a partnership, finally as a corporation, thus involving the use of several forms of accounts.

Credit on this course should mean that the school is ready to vouch for the student as one thoroughly versed in the principles and practice of bookkeeping, who lacks only

actual business experience to become a competent bookkeeper.

*Business Law* (½ unit).

The object of this study is not to make "every man his own lawyer," but rather to enable him to keep out of legal complications. For ignorance of the law excuses no one.

To this end, it is necessary to study the legal principles governing business relations, especially contracts, their nature, essentials, and effects; further sales, interest and usury, bills and notes, agency, partnership, corporations, real property and mortgages, liens, attachments, surety and guarantyship, bailments, common carrier, banking, fire insurance, landlord and tenant.

Text book, supplemented by some study of cases (by way of illustration), discussions, and practice in drawing legal papers such as a contract, note, bill of exchange, bill of sale, bill of lading, power of attorney, deed, mortgage, lease, notice of protest, etc.

*Stenography and Typewriting* (2 units).

This work is expected to occupy not less than two periods daily for two years. No credit should be given for either shorthand or typewriting if taken alone.

The "touch" method is strongly recommended in typewriting.

The object is first, accuracy, and second, speed in taking dictation and transcribing notes. Equally essential are correct spelling, capitalization, punctuation and paragraphing.

No credit should be given unless the following speed is attained: at end of first year, 75 words per minute in dictation and 25 words per minute on the machine; at end of second year, 500 words in 5 minutes in dictation, and 35 words per minute in the transcription of notes.

Thorough training should also be given in care of the machine, and in methods of copying, manifolding and filing papers.

*Business Spelling and Correspondence* (½ unit).

Preliminary review of 500 common business words. Thorough drill on business correspondence including:

(1) Form of business letters, beginnings and endings, etc.

(2) Choice of words and structure of sentences with reference to clearness and brevity.

(3) Capitalization, punctuation and paragraphing.

(4) Writing and answering telegrams and advertisements.

If the pupil does not write a clear and neat business hand, he should be required to make good his deficiency, or no credit should be granted for the course.

Text book, supplemented by letters relating to the most prominent industries of the locality.

*History of Commerce* (½ unit).

Knowledge of the past is indispensable to an understanding of the present. The History of Commerce thus forms the natural introduction to the study of present economic conditions. It should, however, follow the usual courses in Ancient, Medieval and Modern History.

The principal commodities, centers and routes of commerce in successive ages. Relation to stage of economic development, division of labor, means of transportation and communication, markets and fairs, their functions in commerce. Special attention to England and the United States; and to the growth of modern colonial empires.

Text book, supplemented by map work and assigned readings.

*Economic History of England* (½ unit).

A study of English history with special reference to the

causes and effects of her economic development. It should be based on some of the smaller economic histories such as Cheyney, Price, or Cunningham and McArthur.

This course, where given, will naturally follow the courses in general European history, and may take the place of the usual political English history.

*Economic History of the United States* (½ unit).

A study of American history with special attention to the economic factor. It should be based on some text book such as Wright, Coman or Bogart and supplemented by collateral reading, especially in books such as Semple and Brigham on geographic influences.

This course will naturally follow the one on English history and may take the place of the usual political American history.

*Materials of Commerce* (½ unit).

A study of the most important food stuffs and raw materials which enter extensively into commerce, with special reference to their source, mode of preparation and principal uses.

A course introductory to commercial geography. Text book, study of specimens and pictures, collateral reading, visits of inspection. The introduction of this subject is not recommended unless samples can be provided of at least two dozen of the chief commercial staples in various stages of preparation.

*Commercial Geography* (½ unit).

As the history of commerce is concerned with the past of commerce, so commercial geography describes and seeks to explain the industry and commerce of nations to-day. It is "a comparative study of the nations of the world, their commercial prominence and their contest for the trade of the world."

The introductory work should cover: (1) the effect of surface, soil, climate, etc., that is, the physical factor in commerce; (2) the influence of race, religion, education, commercial policies, etc., that is, the human factor in commerce; (3) the effect of economic forces on production and commerce; (4) means of transportation and communication.

Following this should come a detailed study of the United States by sections and then as a whole, with reference to physical features, and climate, natural resources, population, leading industries, transportation facilities and commerce, especially foreign commerce; then a study of the outlying possessions of the United States; and finally, a survey of the other important commercial countries from the same viewpoint.

Text book, supplemented by map work and assigned readings. For purposes of illustration, samples of commercial staples, lantern slides, stereopticon pictures, etc., should be freely employed; and wherever possible, visits of inspection made and informal lectures secured by experts in various industries. Should be preceded by physical geography.

*Elementary Economics* (½ unit).

The study of Economics is indispensable if the business man is to understand the process in which he has a part, and the tendencies which are at work in the business world of to-day.

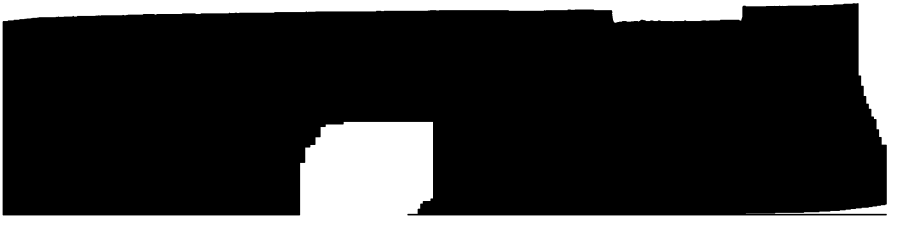
In the high school, it is necessary to avoid two extremes: the one, abstract theory; the other, controversial questions. While not omitting theory, emphasis should therefore be placed on historical and descriptive matter.

Text book, with collateral readings, especially on the economic history of England and the United States. In the selection of texts it is well to avoid large and difficult books intended for college classes.

## MANUAL TRAINING.

COMMITTEE.

C. M. Woodward (Chairman), Dean of School of Engineering and Architecture, Washington University, St. Louis.
T. K. Lewis, Assistant Professor of Engineering Drawing, Ohio State University.
J. W. Carr, Superintendent of Instruction, Dayton, Ohio.
G. N. Carman, Director, Lewis Institute, Chicago, Illinois.
C. A. Bennett, Professor of Manual Arts, Bradley Polytechnic Institute, Peoria, Illinois.
J. D. Phillips, Professor of Drawing, University of Wisconsin.
J. J. Flather, Professor of Mechanical Engineering, University of Minnesota.
G. F. Weitbrecht, Principal, Mechanic Arts High School, St. Paul, Minnesota
A. C. Newell, Supervisor of Manual Training, West Des Moines, Iowa.
C. H. Bailey, Director of Manual Training, Iowa State Normal School, Cedar Falls, Iowa.
C. R. Richards, Professor of Mechanical Engineering, University of Nebraska.
W. M. Davidson, Superintendent of Instruction, Omaha, Nebraska.
A. A. McDonald, High School, Sioux Falls, South Dakota.
V. C. Alderson, President, State School of Mines, Golden, Colorado.
C. A. Bradley, Principal, Manual Training High School, Denver, Colorado.



*Definitions* (10 units).

MANUAL TRAINING COMPRISES A SYSTEMATIC STUDY OF THE MANUAL ARTS, EMBRACING (1) THE MECHANIC ARTS, (SHOPWORK, DRAWING); (2) HOUSEHOLD ARTS, (SEWING, COOKING).

The minimum time given per year in order to count as a unit should not be less than the equivalent of 240 hours of 60 minutes. No superior limit is given, but additional hours should not receive additional credit.

*Shopwork* (4 units).

Every exercise which is involved in what follows should be planned and executed to illustrate an important mechanical principle or process, or a combination of such principles and processes.

The exposition of a tool and the demonstration of a process should be before the entire section of pupils conveniently seated so as to see all that the teacher does, and hear all that he says.

The shop-period of first-year boys ought not to exceed 100 minutes in length; but third and fourth-year pupils can profitably have longer, but less frequent shop-periods; however, those periods should never exceed 180 minutes.

Pupils should never be left to find out for themselves the proper ways of using a tool. The correct ways should be clearly and fully shown and explained. The use of a wrong tool, and the adoption of an illogical or unscientific procedure should at once be checked, and the error should be plainly pointed out.

*Bench Work* (1 unit).

(a) Fundamental tool processes: Measuring, squaring, gauging, sawing, boring, chiseling; rules for planing.

(b) Constructions involving groove joints and halv-

ing; laying out and cutting joints; use of nails, screws and glue; carving and finishing.

(c) Making a glue joint; planing joints, gluing, clamping, surfacing, sandpapering.

(d) Construction by means of mortise-and-tenon joint; laying out duplicate parts, cutting mortise, sawing tenon, gluing and clamping, scraping, finishing.

(e) Construction involving the miter joint; planing parallel edges and sides in the construction of a miter box; rebating, laying out and cutting a brace.

(f) Dovetailing: laying out and cutting dovetails, planing corners, inlaying.

(g) Construction involving the use of the panel: plowing, fitting, gluing, clamping, putting on hinges, finishing.

2. *Wood-Turning and Elementary Metal-Working* (1 unit).

(1) Wood-turning. Use of different kinds of wood. Care of lathe.

(a) Turning spindle, cylinder, taper, convex curve, concave curve, compound curve; turning to given dimensions, finishing and polishing in the lathe.

(b) Faceplate turning.

(c) Chuck turning; built-up stock, fitting.

(2) Metalworking. Working in a variety of metals, including cast-iron, steel, brass, tin, zinc, and copper.

(a) Chipping and Filing; chipping with cold chisel and hammer; filing, testing, tool dressing.

(b) Making small tools. Drilling, filing, fitting, riveting, finishing.

(c) Construction in sheet metal; pattern cutting, bending, folding, wiring, soldering.

(d) Copper work: sawing, beating, hard soldering, repoussé, annealing, coloring with heat and chemicals, etching.

(e) Turning: Hand-tool turning, filing in lathe, polish-

ing in lathe, thread cutting with top and die, hardening, tempering, annealing.

(f) Spinning: cutting templet, turning form in wood to fit templet, spinning zinc or Britannia metal and copper, polishing, lacquering.

3. *Pattern Making, Molding and Forging* (1 unit).

The theory and use of patterns, how built, how divided and why; pattern-making, bench-molding of simple and complex patterns; theory and use of cores, construction of cores and core-prints; casting with lead and alloys.

Construction and management of the forge—fundamental processes; drawing, up-setting, bending, punching, splitting, welding, hardening; shaping steel under the hammer; tempering of different grades; the construction of chains, hooks and forge tools, and wrought-iron articles from original or selected designs; finally the manufacture of a set of standard steel lathe tools. The design and actual construction of a piece of ornamental wrought-iron or steel work.

4. *Bench and Machine Metal Fitting* (1 unit).

Theory of metal-turning, centering; forms of cutting tools and tool-grinding; turning cast-iron, wrought-iron, steel, and brass; use of oil, relation of speed to heat developed; use of taps and dies; screw cutting, chuck-work, mandril and face-plate work; drilling, slotting, planing, gear-cutting, and special work on the milling machine. Having mastered the elements, each student should combine more or less of such elements in a construction, made in accordance with original or selected drawings.

*Drawing* (2 units).

1. (a) Straight lines; use of T-square, triangles, pencil, ruling pen, dividers, and scale. Conventional lines. Freehand working sketches.

(b) Circles. Use of compasses, center lines, cross-hatching.

(c) Tangents. Location of centers and points of tangency.

(d) Planes of projection; elementary principles of projection; revolution of the planes of projection. Projections of simple geometric figures.

(e) Revolution of objects. "Views" of objects in simple and inclined positions.

(f) Developments: prism, cylinder, pyramid, cone.

(g) Intersections. Axes in the same plane, axes in different planes.

(h) Isometric and cabinet drawing.

(i) Freehand and mechanical lettering; placing, form, slant, spacing, stroke.

(j) Working drawings; furniture.

(k) Working drawings; machine parts.

(l) Building plans; floor plans, elevations.

2. (a) Mechanical perspective.

(b) Freehand drawing in perspective.

(c) Construction of conic sections and helix.

(d) Line shading.

(e) Wash drawing.

(f) Designing for metal work.

(g) Either machine or architectural drawing.

*Household Arts and Science* (4 units).

1. *Plain Sewing* (1 unit).

Every exercise in sewing should illustrate an important principle or process, or a simple combination of such principles and processes. Hand sewing and sewing machine work must be equally insisted upon.

(a) The various stitches and their special uses.

(b) Hand sewing, fundamental processes.

(c) The use and care of sewing machines and their attachments.

(d) The nature and special uses of cotton, linen, and woolen goods.

(e) The use of patterns; cutting out.

(f) Taking measurements; making of simple garments.

2. *Sewing and Millinery* (1 unit).

(a) Making of shirt waists, wash-dresses, and similar garments.

(b) Millinery: Study of materials for hats; making, altering, and covering hat frames. The planning, making, and trimming of seasonable hats of appropriate materials.

Throughout the course economy and good taste in dress.

*Cooking* (2 units).

1. Food classified and tested for food principles.

A study of the effect of heat upon foods alone and in combination; experiments with leavening agents, and their uses shown in actual cooking. Bread making. The theory and practice of canning and preserving fruits, vegetables, and meats. Planning, cooking, and serving meals. Waiting on table.

2. The cost of food; market prices; the cost of meals. Household accounts. The family dietary: The planning, weighing, and cooking of apportioned meals. Diets for infants, invalids, and convalescents.

Sanitation: Selection of site, house planning; heating, lighting, and ventilating; water supply; disposal of waste; furnishing and decorating; cleaning processes, including laundry work.

BOARD OF INSPECTORS.

Whitney, A. S. (Chairman), University of Michigan.
Aiton, G. B., State of Minnesota.
Ballou, F. W., University of Cincinnati.
Boyd, W. W., University of Ohio.
Butler, Nathaniel, University of Chicago.
Elliff, J. D., University of Missouri.
Ensign, F. C., University of Iowa.
Heyward, Richard, State of North Dakota.
Holland, E. O., University of Illinois.
Hollister, H. A., University of Illinois.
Johnson, W. H., University of Kansas.
Libby, Walter, Northwestern University.
Reed, A. A., University of Nebraska.
Swanson, C. E., State of South Dakota.
Terry, H. L., State of Wisconsin.
Thompson, Frank E., University of Colorado.
Tressler, A. W., University of Wisconsin.

STANDARDS OF ADMISSION

The aim of the North Central Association of Colleges and Secondary Schools is, first, to bring about a better acquaintance, a keener sympathy and a heartier coöperation between the Colleges and Secondary Schools of this territory; secondly, to consider common educational problems and to devise best ways and means of solving them; and thirdly, to promote the physical, intellectual and moral well being of students by urging proper sanitary conditions of school buildings, adequate library and laboratory facilities, and higher standards of scholarship and of remuneration of teachers. The Association is voluntary, organized and devoted solely to the highest welfare of the boys and girls of this territory, and it bespeaks the cordial and sympathetic support of all school men.

The following constitute the standards of admission to this Association for the present year:

1. No school shall be accredited which does not require fifteen units, as defined by the Association, for graduation.

2. The minimum scholastic attainment of all high school teachers shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools, including special training in the subjects they teach, although such requirements shall not be construed as retroactive.

3. The number of daily periods of class-room instruction given by any one teacher should not exceed five, each to extend over at least forty minutes

in the clear. (While the Association advises five periods, the Board of Inspectors will reject all schools having more than six recitation periods per day for any teacher.)

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught as outlined by the Association.

5. The location and construction of the buildings, the lighting, heating and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

6. The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.

7. Wherever there is reasonable doubt concerning the efficiency of a school, the Association will accept that doubt as ground sufficient to justify rejection.

8. The Association will decline to consider any school whose teaching force consists of fewer than four teachers exclusive of the Superintendent.

9. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the inspector.

10. All schools whose records show an abnormal number of pupils per teacher, as based on average number belonging, even though they may technically meet all other requirements, are rejected. The Association recognizes thirty as maximum.

11. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the Association.

12. The organ of communication between the accredited schools and the Secretary of the Commission for the purpose of distributing, collecting, and filing the annual reports of such schools and for such other purposes as the Association may direct, is as follows:

a. In states having such an official, the Inspector of Schools appointed by the state university. b. In other states the Inspector of Schools appointed by state authority, or, if there be no such official, such person or persons as the Secretary of the Commission may select.

The Association is very conservative, believing that such action will eventually work to the highest interests of the schools and the Association. It aims to accredit only those schools which possess organization, teaching force, standards of scholarship, equipment, esprit de corps, etc., of such character as will unhesitatingly commend them to any educator, college or university in the North Central territory.

## ACCREDITED SCHOOLS.

Adopted March 27th, 1908.

### Colorado

Aspen
Canon City
Colorado Springs
Colorado State Preparatory
Cripple Creek
Denver:
- East Side
- West Side
- North Side
- South Side
- Manual Training

Durango
Florence
Fort Collins
Golden
Grand Junction
Greeley
Idaho Springs
La Junta
Leadville
Longmont
Loveland
Monte Vista
Pueblo:
- Centennial
- Central

Salida
Trinidad
Victor

### Illinois

Alton
Augustana Coll. Academy (Rock Island)
Aurora:
- East
- West

Beardstown
Belleville
Belvidere:
- North
- South

Bloomington
Blue Island
Bradley Polytechnic Institute (Peoria)
Cairo
Carthage Coll. Academy
Champaign
Chicago:
- Austin
- Calumet
- Crane (Man. Tr.)
- Curtis
- Englewood
- Hyde Park
- Jefferson
- Lake View
- Marshall
- McKinley
- Medill
- Phillips
- South Chicago
- Tuley
- Waller

Chicago Heights (Bloom Tp.)
Danville
Decatur
DeKalb Tp.
Desplaines (Maine Tp.)
Dixon
DuQuoin Tp.
Elgin
Elgin Academy
Evanston Tp.
Evanston Academy
F. W. Parker (Chicago)
Freeport
Galva
Grand Prairie Seminary (Onarga)
Harrisburg Tp.
Harvey (Thornton Tp.)
Highland Park (Deerfield Tp.)
Hinsdale
Hoopeston
Ill. Woman's Coll. Prep. Dept. (Jacksonville)
Joliet Tp.
J. Sterling Morton Tp.
Kankakee
New Trier Tp.
Kenwood Institute (Chicago)
Kewanee
Lake Forest Academy
La Salle-Peru Tp.
Lyons Tp. (La Grange)
Macomb
Mattoon
Maywood and Melrose Park Tp.
Moline
Morgan Park Tp.
Normal
N. W. Military Academy
Oak Park Tp.
Ottawa Tp.
Pekin
Peoria
Polo
Pontiac Tp.
Princeton Tp.
Quincy
Rochelle
Rockford
Rock Island
Savanna Tp.
Springfield
Sterling Tp.
Streator Tp.
Sycamore
Tuscola
Waukegan Tp.
Western Mil. Acad. (Upper Alton)
Wheaton

### Indiana

Alexandria
Anderson
Attica
Bedford
Bluffton
Connersville
Crawfordsville
Elkhart
Elwood
Evansville

**Indiana** (Continued)

Fort Wayne
Franklin
Greenfield
Hammond
Indianapolis:
  Manual Training
  Shortridge
Kokomo
Lafayette
Logansport
Michigan City
Muncie
Plymouth
Rensselaer
Rochester
Shelbyville
South Bend
Terre Haute
Valparaiso
Vincennes
Winona Park (Young Women)

**Iowa**

Algona
Ames
Boone
Burlington
Cedar Rapids
Cherokee
Clarinda
Clinton
Corning
Corydon
Council Bluffs
Creston
Davenport
Decorah
Denison
Des Moines:
  East
  North
  West
Dubuque
Eagle Grove
Fort Dodge
Grinnell
Ida Grove
Iowa City
Keokuk
La Mars
Marengo
Marion
Marshalltown
Mason City
Missouri Valley
Newton
Osage
Onawa
Oskaloosa
Ottumwa
Red Oak
Sheldon
Sioux City
Vinton
Washington
Waterloo:
  East
  West

**Kansas**

Abilene
Emporia
Fort Scott
Hiawatha
Iola
Kansas City
Lawrence
Leavenworth
Paola
Junction City
Sumner Co.
Wichita
Winfield

**Michigan**

Adrian
Albion
Alpena
Ann Arbor
Battle Creek
Bay City, E. S.
Bay City, W. S.
Benton Harbor
Benton Harbor Col. Inst.
Bessemer
Cadillac
Calumet
Coldwater
Crystal Falls
Detroit:
  Central
  Delray
  Eastern
  Western
  Higgins
  University
Dowagiac
Evart
Flint
Grand Rapids
Hancock
Houghton
Howell
Ionia
Iron Mountain
Jackson
Kalamazoo
Lansing
Manistee
Manistique
Marshall
Marquette
Menominee
Michigan Military Acad.
Monroe
Muskegon
Mt. Clemens
Mt. Pleasant
Niles
Norway
Otsego
Owosso
Petoskey
Port Huron
Portland
Saginaw, E. S.
Saginaw, W. S.
South Haven
St. Johns
St. Joseph
Three Rivers
Union City
Wyandotte

**Minnesota**

Albert Lea
Anoka
Austin
Blue Earth

**Minnesota (Continued)**

Crookston
Duluth Central
Ely
Eveleth
Fairmont
Faribault
Fergus Falls
Grand Rapids
Hastings
Hibbing
Hutchinson
Little Falls
Mankato
Marshall
Minneapolis:
  Central
  East
  North
  South
Montevideo
Moorhead
Morris
New Ulm
Northfield
Owatonna
Red Wing
Rochester
St. Cloud
St. James
St. Paul:
  Central
  Cleveland
  Humboldt
St. Peter
Sleepy Eye
Stillwater
Virginia
Waseca
Willmar
Winona

**Missouri**

Blees Military Academy
Boonesville
Carrollton
Carthage
Chillicothe
Kansas City:
  Central
  Manual Training
  Westport
Kemper Military Acad.
Kirkwood
Maryville
Mexico (McMillan High)
Nevada
Poplar Bluff
St. Joseph
St. Louis:
  Central
  Manual Training
  McKinley
  Smith Academy
  Yeatman
Stephen's College
Trenton
Webster Grove
Westminster Col. Acad.
William Woods College

**Nebraska**

Auburn
Beatrice
Blair
Brownell Hall
Falls City
Fairbury
Fremont
Grand Island
Hastings
Lincoln
Lincoln Academy
McCook
Nebraska City
Nebraska Wesleyan Academy
Norfolk
Omaha
South Omaha
Superior
York

**North Dakota**

Devils Lake
Fargo
Grafton
Grand Forks
Jamestown

**Ohio**

Akron
Ashtabula
Bellefontaine
Bryan
Cambridge
Canton
Chillicothe
Cincinnati:
  Franklin
  Hughes
  Walnut Hill
  Woodward
Circleville
Cleveland:
  Central
  East
  Glenville
  Lincoln
  South
  West
Cleveland Heights
Columbus:
  Central
  East
  North
  South
  School for Girls
Conneaut
Coshocton
Dayton
Delaware
East Cleveland
East Liverpool
Elyria
Findlay
Fostoria
Fremont
Gallipolis
Geneva
Glendale
Greenfield
Greenville
Hamilton
Hillsboro
Ironton
Kenton
Lakewood
Lima
London

**Ohio** (Continued)
Lorain
Madisonville
Mansfield
Marietta
Marion
Martins Ferry
Marysville
Massillon
Middletown
Mt. Vernon
Nelsonville
Newark
New Philadelphia
Norwood
Oberlin
Oberlin Academy
Oxford College for Women (Academy)
Painesville
Portsmouth
Ravenna
Salem
Sandusky
Steubenville
Toledo
Troy
Van Wert
Wapakoneta
Warren
Washington C. H.
Wellsville
Willoughby
Wooster
Wyoming
Xenia
Youngstown
Zanesville

**South Dakota**
Aberdeen
All Saints, Sioux Falls
Brookings
Deadwood
Lead
Madison
Mitchell
Sioux Falls
Vermilion
Watertown
Webster
Yankton

**Wisconsin**
Antigo
Appleton
Ashland
Baraboo
Beaver Dam: Wayland Academy
Beloit
Berlin
Black River Falls
Chippewa Falls
Columbus
Eau Claire
Elkhorn
Evansville
Fond du Lac
Grand Rapids
Hartford
Janesville
Kaukauna
Kenosha
La Crosse
Lancaster
Lodi
Madison
Madison: Wisconsin Academy
Manitowoc: North
Marinette
Marshfield
Medford
Menasha
Menomonie
Merrill
Milwaukee:
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North
South
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Milwaukee-Downer Seminary
Monroe
Neenah
Neillsville
Oconomowoc
Oconto
Oshkosh
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Portage
Racine
Racine College Grammar School
Reedsburg
Rhinelander
Ripon
River Falls
Sheboygan
Sinsinawa: St. Clara Academy
Sparta
Stevens Point
Stoughton
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